Looking into the Light: Reinventing the Apparatus in Contemporary Art

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Abstract

This practice-led research explores the ‘apparatus’ in relation to its mediation of experience in contemporary art. Drawing on the thought of Vilém Flusser, a model of the apparatus is developed. Technical images such as photography, film and video, are dependent on the apparatus for their production and dissemination, yet the apparatus itself is often hidden or obscured in both the experience of the work and the discourse that surrounds it.

I propose that in making or modifying apparatuses that are part of the viewing experience, artists produce specific modes of spectatorship. Using the framework of the apparatus as an interpretive lens, these modes of spectatorship are considered in works by Carsten Höller, Pipilotti Rist and Olafur Eliasson.

The research identifies key practice strategies that foreground the apparatus both in the production of work and in its presentation. These strategies are developed and articulated in the context of my own practice and explored through creative works in the exhibition ‘Complex Experience.’ The research therefore develops critical and generative strategies to explore and interrogate the workings of the ‘apparatus-audience complex.’

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Statement of Original Authorship

The work contained in this thesis has not been previously submitted for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature

QUT Verified Signature

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Introduction

This practice-led research explores the role of ‘the apparatus’ in the creation and mediation of experience in contemporary art. The research emerges from my visual arts practice, and has developed from questions that have been raised by the workings of the practice itself. It comprises a 50% Practice component and 50% exegetical component, and seeks to develop and articulate a model of the apparatus as both a practice methodology and an interpretive lens.

A Background to the Practice

This research has developed from questions raised by the workings of my practice. Over the last ten years I have developed an idiosyncratic working method in which I have subjected various apparatuses (principally photographic) to processes of manipulation and modification. This has included making and adapting specific cameras, lenses and other viewing devices to create artworks that explore the photographic image as a tool for perception, memory and experience.

An important aspect of these interventions has been their ‘do it yourself’ (d.i.y.) character. They are made with everyday materials and employ the most basic principles of the photographic medium. In exploring such fundamental principles, the work re-enacts the sense of invention that characterised early photography and film, while employing contemporary materials and subjects. This approach is grounded not in the realm of the specialist or the expert, but in that of the enthusiastic amateur: the snapshot photographer, the garage inventor, or the bedroom musician. These activities reflect the focus on the everyday in my works.

Figure 1: Golden Arrows from the series *red yellow blue* 2000; pinhole camera

Many of the defining characteristics of the practice can be traced back to my early works using pinhole photography. This is the most basic form of photography, in which any hollow, light-tight object can be turned into a camera by making a pinhole small enough to focus beams of light (fig. 1). The sensibility of pinhole photography brings together the ordinary and the spectacular to explore the alchemical wonder of media and the transformative potential of simple (sometimes absurd) gestures. This is a sensibility that has continued to define my work with other forms of d.i.y. photography (fig. 2), and continues to characterise my practice today.

Figure 2: selection of modified cameras and lenses 2000-2010

The sometimes spectacular effects of these interventions have been balanced by a critical mindset aimed at deconstructing the medium. Over time, these processes and approaches to making have been refined to focus on the relationship between apparatus and subject. To counter the potential novelty value of these process-based explorations, my practice developed a rigorous (if internal) logic that determines the relationship between process and effect, apparatus and subject. This close consideration of the relationship between apparatus, representation and viewer makes my approach to the apparatus conceptually, as well as physically, deconstructive.

Figure 3: Untitled from the series *detail* 2002-11

One example of this is found in my construction of a makeshift macro lens made from plastic magnifying glasses, which was used to put photography itself under a deconstructive magnifying glass in the series *detail* (fig. 3). Such works subvert the oft-presumed objectivity of the photograph by fragmenting images, taking them out of context and creating new relationships. The homemade lens creates a grainy haze across the image, suggesting the soft focus of nostalgia or memory as well as emphasising the phenomenological experience of perceiving the image. This series also demonstrates the relationship of my work to photographic discourse. For example, the formal

qualities amplify the Benjaminian aura of 'distant presence',[1] and take literally, or exaggerate, Roland Barthes' notion of the punctum[2] by taking small details from images and magnifying them to fill the entire frame.

Beyond the creation of photographic images, however, my practice has been engaged with the medium through an interest in the desire *to* photograph and the gesture of photographing itself. Often, these ideas have been explored in my practice by complicating them, as in the series *Untitled Snapshots* (fig. 4). For this series, I removed the shutter from a plastic 'snapshot' camera, and carried it during my everyday routine over a number of years to record small moments of quotidian experience. The removal of the shutter brought the act of taking a photograph close to an attempt to physically grasp the moment, by making the exposure dependant on my own reflexes rather than on those of the camera.

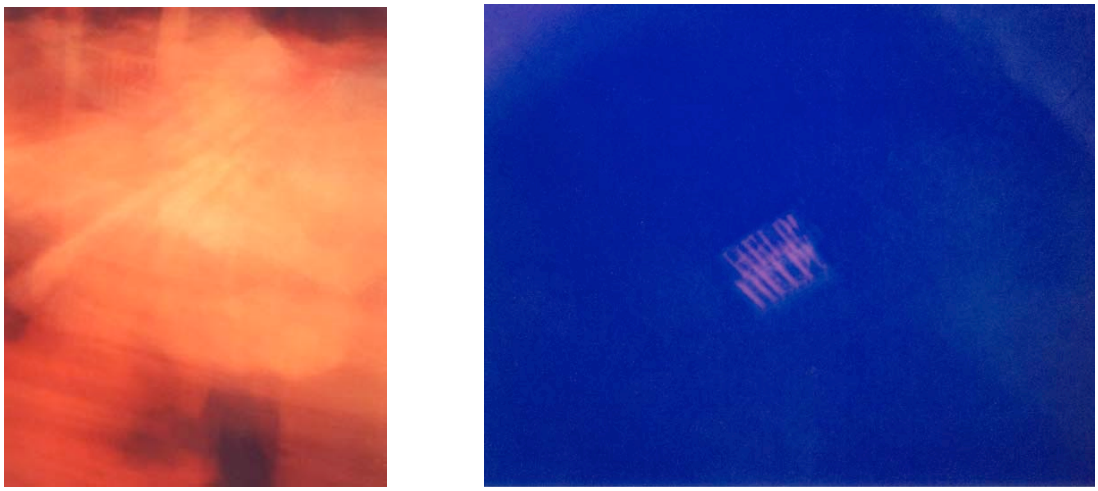

Figure 4: Untitled from the series *Untitled Snapshots* 2002-9

This way of working also challenges conventional models of photography where the photographic print is privileged as the ultimate site of experience. Yet at the same time, my processes of image-making remained largely invisible to the audience, and it was difficult to communicate the process to the viewer without, for example, presenting cameras like museum artefacts alongside the images. My practice subsequently moved towards a greater engagement with viewing technologies as a means of extending my process

into the audience's experience of the work. A key task for this practice-led research was to develop an expanded conception of the apparatus in the context of these changes within my own practice. This research brings forward qualities from my prior engagement with the photographic apparatus, while also expanding this to place the viewer at the centre of the process. It is therefore a practice that seeks to move beyond an emphasis on the photographic image as a 'certificate of presence'[3] (of the photographed subject) towards a consideration of the presence of the viewing subject.

This research extends my practice-led methodology beyond the purely photographic so as to generate works that investigate optical and spatial experiences of the apparatus. Furthermore, it applies this conception of the apparatus to an investigation of spectatorship. These range from stereoscopic viewing devices to immersive projection environments. The research also responds to the changing ontology of the photographic image and the camera itself as they are affected by the transition from print to screen-based experiences. This means that images are being integrated more seamlessly within the broader apparatuses of the digital realm and global communications. One could characterise this as a transition from recording to sharing; from a model of photography represented by the pointing fingers of indexicality, to one epitomised by the thumbs-up of images "liked" on facebook.

Approaching the Apparatus: Research Problem and Structure

This practice-led research seeks to develop and articulate a model of the apparatus as both a methodology that contextualises my working process, and as an interpretive lens for the consideration of other artists' practices. Therefore, the evolution described above, from an engagement with a specifically photographic apparatus towards an expanded conception of the apparatus that encompasses the viewer, is echoed in the structure of this exegesis.

The research operates in what might be termed an 'Expanded Field of Photography'; that is, a field that is defined in terms of conceptual and material qualities of the photographic, without necessarily working directly with or producing photographs. These photographic qualities include concepts of vision, memory, experience and its mediation, as well as material aspects such as the phenomena of light, and more evocative elements of photographic process, such as ideas of exposure and illumination. In referring to this 'Expanded Field' I am recalling both Rosalind Krauss' discussion of 'Sculpture in the Expanded Field' and the practices of 'Expanded Cinema'. These sources also indicate the degree to which this model of the apparatus operates between disciplines.[4]

The first Chapter considers key theoretical viewpoints about the apparatus, proceeding from its status as a 'blind spot' that is overlooked and marginalised in dominant photographic discourse. It also examines Vilém Flusser's expansive conception of technical images and the Photographic Universe in which they operate. Flusser's model is contrasted with models of the Apparatus drawn from the Poststructuralist thought of Michel Foucault and from Cinema Theory. This chapter positions my practice in relation to this terrain, and identifies the theoretical gap that this research addresses.

In Chapter Two, this theoretical model of the apparatus is developed in relation to contemporary contextual practices. The particular focus of this discussion is to locate instances in which artists make or modify apparatuses to mediate or generate specific experiences for their audiences. The artist-made apparatus presents a particular conception of the apparatus that is defined in terms of spectatorship. A close examination of works by contemporary artists Carsten Höller, Pipilotti Rist and Olafur Eliasson will further delineate these parameters. This chapter will also develop the idea of the apparatus as an interpretive lens, and consider these artists' uses of the apparatus, as a means of gaining new insights into their practices.

The creative works produced in the course of this research seek to foreground the relationship between audience and apparatus, and to reveal its workings. Chapter Three outlines the key practice strategies that I have developed to

this end, and reflects upon the creative outcomes of the research. The exhibition *Complex Experience* (2013) is discussed in detail, and the outcomes and ongoing results of these practice developments are discussed.

Research Methodology: A Note on Practice-led Research

By its practice-led nature, this research is: 'led by what is best described as "an enthusiasm of practice"', utilises 'experiential starting points from which practice follows' and 'what emerges [from the research] is individualistic and idiosyncratic.'[5] It is grounded in practice, but also draws on and is articulated in relation to theory. Therefore, while at times this exegesis deals with theoretical and creative contexts separately, this should not be construed as indicating a similar divide within the research itself. Like the photographic thinking that underpins it, the practice is neither a window framing theory, nor a mirror reflecting it. Nor is it an illustration of theory, as a retrospective gaze may suggest. Rather, this research constitutes a dynamic engagement between theory and practice in which each not only frames and reflects, but also motivates, responds, directs and re-directs the other.

In a similar context, Chus Martinez has described art as a 'quantum phenomena', in which: 'Art is not a pretext for thought, but rather a thought that operates by means of the constant exchange between different systems that vacillate between the abstract and the concrete, and that make us vacillate between them as well.'[6] The different systems that are taken within the orbit of this research include both contemporary art practice and critical theory and philosophy.

As Carole Gray has discussed, the spheres of theory and spectatorship are etymologically linked. The root of the word 'theory' lies in the ancient Greek 'to gaze' and is thus linked to 'spectate,' the activity of viewing a spectacle from a distance, the reflection of the 'specular', and the propositional thought of speculation.[7] In practice-led research the 'distant spectatorship' of theory encounters the embedded activities of the practitioner. This dynamic

engagement between theory and practice is enacted through process, making the boundaries of these activities accordingly fluid. I would suggest that this mirrors Vilém Flusser's description of cultural production as the assimilation of 'experiences and thoughts' with objects, 'to form inextricable unities.'[8]

The stereoscope (an apparatus that figures prominently in my creative outcomes) provides a fitting emblem for this practice-led research. The stereoscope presents two different views of the same subject, which are mapped together in the brain rather than the eye, exploiting the process of the spectator's own perception in order to immerse them in the scene. Similarly, the task of this research has been to integrate different perspectives, both theoretical and practical, to explore perceptions of and through the apparatus and to situate my practice within the landscape that this opens up.

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1 Benjamin, W. 1973. "The Work of Art in the Age of Mechanical Reproduction." In *Walter Benjamin: Illuminations*, edited by H. Arendt, 217-252. London: Fontana.

2 Barthes, R. 1981. *Camera Lucida: Reflections on Photography*, translated by R. Howard. New York: Hill and Wang.

3 Ibid. 87.

4 See Krauss, R. 1979. "Sculpture in the Expanded Field." *October* 8:31-44. George Baker has also written of 'Photography in the Expanded Field,' but his use of the terms concerns artists who use photography to engage with other media, such as painting or cinema, in their work. See: Baker, G. 2005. "Photography's Expanded Field." *October* 114:121-140; and Baker, G. 2007. "After 'Photography's Expanded Field.'" In *Between Stillness and Motion: Film, Photography, Algorithms*, edited by E. Røssaak, 123-135. Amsterdam: Amsterdam University Press.

5 Haseman, B. 2006. "A manifesto for performative research." *Media International Australia* 118:98-106. 100.

6 Martinez, C. 2010. "Clandestine Happiness. What Do We Mean By Artistic Research?" *Index* 00:10-13. 12.

7 Gray, C. 2007. "From the ground up: encountering theory in the process of practice-led doctoral research." Paper presented at the AHRC Postgraduate Conference *In Theory?* Loughborough UK, 26 June 2007. 4. www.carolegray.net. Accessed 9th May 2011. Following the same logic, Vilém Flusser compared theory to touristic sight-seeing, or 'being a spectator of the sight-worthy.' Flusser, V. 2003. *The Freedom of the Migrant: Objections to Nationalism,* translated by K. Kronenberg, edited by A. K. finger. Urbana: University of Illinois Press. 28. The liniguistic link between theory and sight is also discussed in: Davey, N. 2006. "Art and *Theoria."* In *Thinking Through Art,* edited by K. Macleod and L. Holdridge. 20-39. London: Routledge.

8 Flusser, V. and L. Bec. 2012. *Vampyroteuthis Infernalis*. Minneapolis: University of Minnesota Press. 62.

Chapter 1: The Apparatus in Theory

Introduction: Models of the Apparatus

The model of the apparatus that is explored in this practice-led research operates in contrast to the dominant discourses of contemporary theory and criticism. In much theory and criticism the 'content' of imagery or representation remains the primary focus, rather than the apparatus, which is the means of their production. This chapter will survey existing approaches within photographic discourse to highlight this gap. By examining Roland Barthes' text *Camera Lucida* (1981), I will identify and develop a latent image of the apparatus within Barthes' narrowly focussed discussion of photographic images. I will then outline Vilém Flusser's treatment of the apparatus, which provides an important theoretical framework for this research. This chapter will conclude with a comparison between the model of the apparatus that emerges from Barthes and Flusser, and other conceptions of the apparatus drawn from theorists in Cinema Theory and Post-Structuralism.

1.1 Index and Artefact

The term 'apparatus' appears frequently throughout discussions of photography, however its significance is rarely given consideration. More often than not, it is used in passing, as little more than a synonym for 'camera'. Indeed, discussion of the photographic medium is almost exclusively focused on the apparatus' artefact: the photograph itself. This exclusion creates a gap in the theoretical field, in which the apparatus, to paraphrase a common description of the photograph itself, lingers as an 'absent presence.'[1] This research operates within this gap, by bringing to attention the conditions of the apparatus, within existing photographic theory.

Key paradigms in traditional photographic discourse include: the late modernist, essentialist view of photographs as either 'Windows' or 'Mirrors'[2]; semiotic analyses of photographs as politically embedded texts[3];

psychoanalytical readings of the photograph as a fetishistic, lingering gaze[4]; and 'postphotographic' deconstructions of photographic truth in a digital age.[5] Much of this theorisation is inflected by what might therefore be described as the dominant model in photographic discourse since the 1970s, that of the photograph as an index of reality. This approach is exemplified by Roland Barthes' early writings on photography in *The Rhetoric of the Image* (1964) and *The Photographic Message* (1961), and by Rosalind Krauss's sustained analyses of media-specificity.[6]

Indexical analyses of photography were informed by Charles Sanders Pierce's system of semiotics in which the index features as a category of sign that 'denotes an object by being affected by that object'.[7] In Krauss' assessment, the photograph has a direct indexical relation to its subject, making the photograph comparable to footprints, fingerprints or cast shadows.[8] With the advent of digital photography, this indexical relation has been clouded. More specifically, the increased awareness of the constructed nature of photographic images that the digital brings reveals the projected nature of photography's indexicality. Postphotographic theory's compulsion towards this constructed quality and the resultant severed ties to authenticity, therefore continues to bind the primary conceptualisation of photography to the photograph as artefact.[9] This reinforces its status as a discipline 'after but not yet beyond' photography.[10]

Discussion around the indexical model of photography overlooks the fact that the photograph is an index that results from intention; that it denotes not only a subject *in* the photograph, but also a photographing subject and the apparatus that permits the 'taking' of a photograph. In this model the act of taking a photograph can be conceived as a dual indexation of experience: both in the sense that the photograph is subjected to the logic of photographic indexicality, and that the value of that experience is indexed to its record. Roland Barthes' *Camera Lucida* provides a key account of this indexical relation to the photographic experience, and acknowledges the discursive division between apparatus and image that is central to this research.

1.2 Operator Please: Roland Barthes and the *Camera Lucida*

Roland Barthes' *Camera Lucida: Reflections on Photography* (1981) develops his earlier post-structuralist approach, into what he describes as 'a vague, casual, even cynical phenomenology'.[11] He aims 'to learn at all costs what Photography was "in itself",' to distil photography to its essence through meditations on photographs.[12] *Camera Lucida* has since become a highly influential text in the broader field of photography.[13] It is also a text that strongly influenced my earlier photographic investigations.

Barthes' reflections on photography were prompted by an experience of the photographically mediated gaze, which he understood as a transmission of vision enacted across historical time. The book is structured around the author's poetic reflections on specific photographs, ranging from an 1852 photograph depicting Napoleon's youngest brother, to a snapshot of his recently deceased mother, which he famously refused to reproduce within the text.[14] The key formulation emerging from these reflections is Barthes' identification of what he calls the *punctum* within these images; a telling detail that provokes empathy or a strong emotional reaction in the spectator.[15]

Camera Lucida has been an important text for photographic discourse and for my own engagement with the medium. However, its 'vague and casual' phenomenology produces a highly personalised view of photography, framed around the author's own experiences, likes and dislikes.[16] For example, Barthes dismisses colour photography and the Polaroid from his consideration, classing them as artificial and novel respectively.[17] Although Barthes acknowledges the subjectivity of his reflections, in subsequent critical discussion this aspect is often underemphasised or entirely overlooked.[18] Most significant for my concerns, however, is the distinction Barthes draws between the photograph and the apparatus.

Barthes' distinction between the 'Spectator's photograph' (the physical image produced), and the 'Operator's photograph' (the photograph as seen through the camera) is particularly important. His key formulation of the *punctum* relies entirely on the 'Spectator's photograph'.[19] Barthes acknowledges this bias,

attributing the exclusion of the 'Operator's photograph' to his own inability to enjoy or participate in the act of taking photographs.[20] This, like much critical discourse around photography, leaves the 'Operator's Photograph', and the apparatus to which it is bound, as a latent or undeveloped image within the text. In other words, while the spectator is engaged by the *punctum* of their photograph, the operator's photograph itself functions as a *punctum caesum;* a blind spot.

Maurice Merleau-Ponty uses the term *punctum caesum* to describe the blind spot as that which represents our limited ability to objectively examine our own subjectivity. In the notes for his unfinished book *Visible and Invisible* (1964), Merleau-Ponty describes the *punctum caesum* as 'the untouchable of touch, the invisible of vision, the unconscious of consciousness'.[21] In Merleau-Ponty's account, we cannot simultaneously occupy 'subjective experience and objective existence', which therefore creates a blind spot in our self-awareness.[22] Our visual blind spot forms at the point where the optic nerve meets the eye; therefore the very connection that enables vision also creates a gap within it. The physical occurrence of the blind spot is in this sense mirrored in photographic discourse; the apparatus that enables photography comes to function as a gap within theoretical considerations of it.

Merleau-Ponty characterises the *punctum caesum* as a hinge between subjective and objective experience, that represents the impossibility of their simultaneity.[23] The motion of the hinge is unintentionally echoed by Barthes when he describes the act of photography as a transformation 'from subject to object'.[24] Photography therefore entails a split mode of subjectivity that finds a material counterpart in the title of Barthes' text. The *camera lucida* was a nineteenth century perceptual drawing tool that used the principle of stereoscopic vision to synthesize an artist's view of a scene on a blank page. The *camera lucida* enables the user to have one eye on the referent and the other on its representation, and in this way embodies the split between perception and representation.[25]

Therefore, by way of its subjective relations, exclusions and blind spots, *Camera Lucida* provides an important context for reflection on the

photographic apparatus. While Barthes' account of photography is focused on the photograph itself, his subjective reflections nevertheless open the possibility for understanding the apparatus as an illuminating instrument through which we relate to the world around us. The focus on the apparatus can be developed further through the work of Vilém Flusser.

1.3 The phenomenology of Vilém Flusser

Phenomenologist Vilém Flusser considers the apparatus in relation to photography and the broader media sphere. Flusser's theory of the apparatus, outlined in *Towards a Philosophy of Photography* (1983), *Into the Universe of Technical Images* (1986), and a range of essays written between 1973 and 1991, therefore provides a key theoretical framework for my research.[26]

Flusser's conceptualisation of photography is significant because his subject is not a body of photographs, nor a lineage of practitioners, but a system or a field of activity he terms the 'Universe of Technical Images'.[27] Flusser defines Technical Images as images produced by means of an apparatus.[28] It is therefore a categorisation that takes in photographs, film, television, and digital images. Importantly in the context of my own practice, this model also proposes continuity, rather than contrast, between digital and analogue, and still and moving, images.

In *Towards a Philosophy of Photography* (1983), Flusser defines the apparatus as an object that simulates thought, as distinct from tools and machines, which simulate actions of the body.[29] While this conception of tools and machines approaches Marshal McLuhan's theory of media as 'extensions of man',[30] Flusser claims that the apparatus has a symbolic function; and that its purpose is 'not to change the world but to change the meaning of the world.'[31] Therefore, he sees the machine as dealing with physical matter, whereas the apparatus acts upon the mind through the perception of its audience.

In contrast to the conventions of photographic discourse, Flusser also inverts traditional photographic semiotics. Rather than seeing photographs as indexical traces that are 'stencilled directly off the real',[32] as they would be by a machine such as a printing press, photographic and other 'technical images' are *processed* by the apparatus, translated from visual phenomena into symbols. For Flusser, the focus on photographic indexicality is a case of mistaking symbols for symptoms, a condition that is itself a symptom of the photographic 'program.'[33] He writes that technical images:

> [M]ust be decoded not as representations of things out in the world but as signposts directed outward. It is their projector, their program, that is the object of criticism. What technical images show depends on which direction they are pointing.[34]

Therefore, for Flusser, technical images are not indexical traces; they are *projections* of reality. Accordingly, an analysis of technical images must focus on their actual 'production' rather than on their projected meaning.

For Flusser, the apparatus is characterised as a black box, and the key features of its operation are automation and impenetrability. The universe of technical images in which these projections are situated is a system for producing photography, akin to a computer program. He states that while the apparatus operates 'as a function of the photographer's intention, this intention itself functions as a function of the camera's program'.[35] This program makes the photographer a 'functionary' of the apparatus within an 'Apparatus-Operator Complex'. The operator and the apparatus are bound together within the system that is constituted by the photographic program.

It is important to note that in Flusser's conception, the apparatus is neither inherently utopian nor inevitably fascistic, but contains both potentialities. In order to create new possibilities outside of the predetermined 'program' it is necessary to 'not play with' the apparatus 'but against it … to bring to light the tricks concealed within'.[36] This in turn requires a shift from a 'static' understanding of an apparatus to one in which it is 'mobilised'.[37] The imperatives to re-purpose, play and experiment with the apparatus are a

means of achieving a productive, rather than passive, engagement with culture.

In this way, an experimental and experiential engagement with the apparatus opens up the possibility of escape from the determinism of the photographic program. Priscila Arantes suggests that this is part of a broader attempt on Flusser's part to initiate 'a more phenomenological relationship with our media devices,' which in turn creates 'space for new ways of being-in-the-world beyond the realm of black box programming'.[38] Such ideas provide an important context for my interventions into the workings of the photographic apparatus by pointing to the wider sphere in which the apparatus operates.

1.4 The Black Box and the *Dispositif*

Vilém Flusser's complicated 'apparatus-operator complex' emphasises the impossibility of examining any one element of photography outside of the 'Photographic Universe'. Such discourse is just one more function of its program, leaving no position 'outside' this Universe from which to critique it. This also means that, in contrast to Roland Barthes' line of inquiry, it is impossible to isolate the essence of 'photography in itself'.[39] Instead, the photographic apparatus operates as a function of yet more apparatuses – of the photography industry, of culture, of industrial complexes and socio-economic systems.

Flusser underscores the apparatus as a physical object, such as a camera, which is a 'black box' that is handled by its operator. He also draws an analogy between this object and overarching political and social apparatuses. He states that behind the black box of the camera, 'one recognizes industrial apparatuses, advertising apparatuses, political, economic management apparatuses […] The whole complex of apparatuses is therefore a super-black-box made up of black boxes'.[40] This would seem to suggest that for Flusser, distinctions between apparatuses are a matter of scale, and the term's potential applications range from hand-held devices to political power blocs.

This aspect of the apparatus in Flusser's thought is comparable to the *dispositif* as it appears in the work of Michel Foucault, a term that is often translated into English as 'apparatus'. Figures such as Giorgio Agamben and Jeffrey Bussolini however have highlighted the shortcomings of this translation.[41] Agamben in particular offers an exceedingly broad definition of the *dispositif,* inclusive of 'literally anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings.'[42] Specific examples mentioned by Agamben include cigarettes, agriculture, language, and (his primary example) mobile telephones.

Therefore, for the sake of clarity, it is important to distinguish between the two terms. Foucault defined the *dispositif* as 'the system of relations' between 'a thoroughly heterogenous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions.'[43] Seen in this light, the *dispositif* can be thought of as a matrix of power relations that is overlaid on a situation, a characterisation supported by Gilles Deleuze's emphasis on its nature as 'a tangle, a multilinear ensemble'.[44]

In light of Flusser's theories we might understand Foucault's *dispositif* as being concerned with the invisible contents of the black boxes within the black box. Foucault's thinking is concerned primarily with the operations of, and interrelationships between, these contents, while Flusser's focus is on the apparatus that is itself the interface with them, the point of contact for experience. In Flusser's thought, our engagement with the apparatus provides a potential entry point, a means of opening up the apparatus to shed new light on the *dispositif* that lies behind it.

While Flusser's model of the apparatus and Foucault's theory of the *dispositif* are compatible, this practice-led research preserves a distinction between them, in line with the two possible French translations of 'apparatus'. These are *appareil* - in reference to the apparatus as a physical object, such as a camera - and *dispositif* - in reference to the arrangement of multiple elements.

These two terms also feature in the conception of the apparatus formulated in the cinema theory of Jean-Louis Baudry. This theory of the 'Cinematographic Apparatus' draws a distinction between the terms *appareil* ('the technical base' consisting of projection equipment) and *dispositif* (the darkened, dream-inducing spatial arrangement of projector and screen).[45] The characterisation of the cinematic experience as a waking dream reflects the influence of psychoanalytical metaphors offered by the darkened *dispositif* of the cinema. These include Freudian dream projections, simulations and hallucinations, and Lacanian identifications and mirrorings.

Baudry's theory is also informed by the philosophical model of Plato's Cave. Like the related work of Christian Metz, Baudry's model of the spectator is as a passive, immobile receiver of cinematic illusion.[46] It therefore represents a model of the apparatus that, like its spectator, is chained to the black box of the cinema, and is focused on the simulation of reality. My research however is not focused on the reality effect of technical images, but on their perceptual affect, and on the apparatus as a means of activating spectatorship. To this end, the following chapter will consider artists' constructions of the apparatus.

Conclusion

This literature review has addressed the predominant emphasis on the photograph as artefact within photographic theory. It thereby brings to light an omission in considerations of the apparatus. I have considered the ways in which the apparatus functions as a blind spot in photographic discourse in relation to Roland Barthes' personal reflections on the medium of photography in *Camera Lucida.* Vilém Flusser's complex phenomenology of 'Technical Images' provides a model for the 'apparatus' that will be developed further, beyond the purely photographic, in the Contextual Review.

The expanded conception of the apparatus will then be applied as an interpretive lens in the analysis of contemporary installation practices. I argue that these practices, though not producing 'technical images' in Flusser's sense, nevertheless produce *experiences* by means of apparatuses. As such,

they are resonant with Flusser's shift in emphasis from meaning to experience. This makes it necessary, as Flusser suggests, to:

> [S]tart not from the tip of the vector of meaning but from the bow from which the arrow was shot. Criticism of technical images requires an analysis of their trajectory and an analysis of the intention behind it. And this intention lies in the link, the suture of the apparatus that produced them with the envisioners who produced them.[47]

This is the task I will perform in relation to works by Carsten Holler, Pipilotti Rist and Olafur Eliasson, with particular concern for points where these trajectories and histories cross.

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1 The phrase 'absent presence' reflects an emphasis within photographic discourse on the relationship between photography and mortality, exemplified in the writings of Roland Barthes and Susan Sontag. See Sontag, S. 1977. *On Photography*. London: Penguin Books. 16.; Barthes, R. 1981. *Camera Lucida: Reflections on Photography*, translated by R. Howard. New York: Hill and Wang. 106.

2 Szarkowski, J. 1978. *Mirrors and Windows: Amercian Photography since 1960*. New York: Museum of Modern Art.

3 A representative selection of writers working in this vein includes Victor Burgin, Allan Sekula and John Tagg, all of whom feature in: Burgin, V. Ed. 1982. *Thinking Photography*. London: MacMillan. See also the works of Roland Barthes discussed later in this section.

4 See, for example: Metz, C. 1999. "Photography and Fetish." In *Over Exposed: Essays on Contemporary Photography,* edited by Carol Squiers, 211-219. New York: The New Press; Silverman, K. 1996. *The Threshold of the Visible World*. New York: Routledge; Silverman, K. 2000. "Apparatus for the Production of an Image." *Parallax* 6

(3): 12-28.

5 Mitchell, W.J. 1992. *The Reconfigured Eye: Visual Truth in the Post-Photographic Era*. Cambridge: MIT Press; Ritchin, F. 2008. *After Photography*. New York: W.W. Norton & Co.

6 Both reproduced in Barthes, R. 1977. *Image Music Text*, translated by Stephen Heath. London: Fontana. For examples of Krauss' discussions of the index, see: Krauss, R. 1977. "Notes on the Index: Seventies Art in America." *October* 3:68-81.; Krauss, R. 1977. "Notes on the Index: Seventies Art in America. Part 2." *October* 4:58-67.; Krauss, R. 1984. "A Note on Photography and the Simulacral." *October* 31:49-68.

7 Lechte, J. 1994. *Fifty Key Contemporary Thinkers.* London: Routledge, 146.

8 Krauss, R. 1977. "Notes on the Index: Part 1". *October* 3: 68-81, 70.

9 The persistent fixation on the photographic index is evidenced by debates, both for and against, in Elkins, J. Ed. 2007. *Photography Theory*. New York: Routledge. See also Elkins, J. 2010. *What Photography Is.* New York: Routledge.

10 Batchen, G. 1993. "Post-Photography: After But Not Yet Beyond." *Photofile* 39:7-10.

11 Barthes. 1981. 20.

12 Ibid. 3.

13 Batchen, G. Ed. 2009. *Photography Degree Zero: Reflections on Roland Barthes' Camera Lucida*. Cambridge: MIT Press. 3; see also Knight, D. Ed. 2000. *Critical Essays on Roland Barthes*. New York: Hall Press; Rabate, J-M. Ed. 1997. *Writing the Image After Roland Barthes*. Philadelphia: University of Pennsylvania Press; Shawcross, N. 1997. *Roland Barthes and Photography: The Critical Tradition in Perspective*. Gainesville: University of Florida Press.

14 see Olin, M. 2010. "Touching Photographs: Roland Barthes' 'Mistaken' Identity." In *Photography Degree Zero: Reflections on Roland Barthes' Camera Lucida,* edited by G. Batchen, 75-90. Cambrige: MIT Press.

15 Barthes, op. cit. 27.

16 In other words, to the studium, a category that Barthes opposes to the punctum.

17 Ibid. 81, 3.

18 This is particularly true of Barthes' key term in *Camera Lucida,* the *punctum*, which he acknowledges is different for each viewer of a photograph. Nevertheless, in subsequent criticism the *punctum* is often treated as a universal formula for interpreting photographs.

19 Ibid. 20.

20 Ibid. 21.

21 Merleau-Ponty, M. 1964. *Visible & Invisible,* edited by C. Lefort, translated by A. Lingis. Evanston: Northwestern University Press. 255.

22 Baldwin, T. 2004. "Introduction to The Intertwining: The Chiasm." In *Maurice Merleau-Ponty: Basic Writings*, edited by T. Baldwin, 247-8. London: Routledge. 247.

23 Merleau-Ponty, op. cit. 147.

24 Barthes, op. cit. 13.

25 Throughout *Camera Lucida*, Barthes often refers to the photographic camera as the 'camera obscura,' but towards the end of the book posits the 'bright chamber' of the *camera lucida* as a more appropriate representative of photography than what he terms the 'dark passage' of the *camera obscura.* Ibid, 106.

26 Flusser's discussion of the apparatus is only now beginning to reach a wider audience through the recent translation of these works into English.

27 Flusser, V. 2011. *Into the Universe of Technical Images,* translated by N.-A. Roth. Minneapolis: University of Minnesota Press. In contrast to Barthes' reflections on photography, which are structured entirely around his response to specific images, Flusser rarely describes actual photographic images, and even then it is only in general terms. His approach is to 'bracket out' individual images to better focus on the universe that they constitute.

28 Flusser, V. 2000. *Towards a Philosophy of Photography*. Translated by A. London: Reaktion Books. 85.

29 Ibid. 83, 36.

30 McLuhan, M. 1964. *Understanding Media: The Extensions of Man.* London: Sphere Books.

31 Flusser. 2011. 36.

32 Sontag .1977, 85.

33 Flusser, V. 2012. "Towards a Theory of Techno-Imagination." *Philosophy of Photography,* 2 (2): 195-201. 195.

34 Flusser 2011, 49.

35 Flusser. 2000. 35.

36 Ibid. 27.

37 Fuller, M. 2005. *Media Ecologies: Materialist Energies in Art and Technoculture*. Cambridge: MIT Press. 68.

38 Arantes, P. 2009. "Media, Gestures, and Society." *Flusser Studies* 08 (unpaginated).

39 Barthes. 1981. 3.

40 Flusser. 2000. 71.

41 Agamben, G. 2005. *What is a Dispositif?* www.egs.edu/faculty/giorgio-agamben/articles/what-is-a-dispositif (accessed 22/10/2011); Bussolini, J. 2010. "What is a Dispositive?" *Foucault Studies* 10: 85-107. Ironically, when Agamben's text was translated into English, the term 'Apparatus' was used rather than 'dispositif'. The reason given the term's resonance with the *Apparat*, an instrument of torture in Franz Kafka's *The Trial*. See translator's note, in Agamben, 2009. 9. A model of Kafka's *Apparat* ws recently exhibited at the New Museum in New York in the exhibition *Ghosts in the Machine,* alongside kinetic and optical works by artists including Marcel Duchamp, Otto Piene, Paul Sharits and Stan VanDerBeek.

42 Agamben, G. 2009. *What is an Apparatus?* Translated by D. Kishik and S. Pedatella. Stanford: Stanford University Press. 14.

43 Foucault, M. 1980. "The Confession of the Flesh." In *Power/Knowledge: Selected Interviews and Other Writings*, edited by C. Gordon, 194-228. London: The Harvester Press. 194.

44 Deleuze, G. 1992. "What is a Dispositif?" In *Michel Foucault: Philosopher*, edited by T. Armstrong, 159-168. New York: Routledge. 159.

45 Baudry, J.-L. and A. Williams. 1974. "Ideological Effects of the Basic Cinematographic Apparatus." *Film Quarterly* 28 (2):39-47.

46 See Metz, C. 1986. *The Imaginary Signifier: Psychoanalysis and the Cinema*. Indianapolis: Indiana University Press.

47 Flusser, 2011, 49.

Chapter 2. The Apparatus in Context

Introduction: Looking at the Apparatus

In the previous Chapter I argued that the apparatus functions as a blind spot within photomedia discourse; that it enables photographic perception but is not the subject of extended analysis. The same applies to moving technical image forms such as film and video, in that the equipment used to project or screen images are rarely the focus of attention. If the apparatus operates as a blindspot, then perhaps Brion Gysin's *Dreamachine* (fig. 5) provides an ideal model for its experience. The Dreamachine is an apparatus to be viewed with closed eyes, so as to produce 'inner visions'[1]; that is, it is an object to be experienced but not seen.

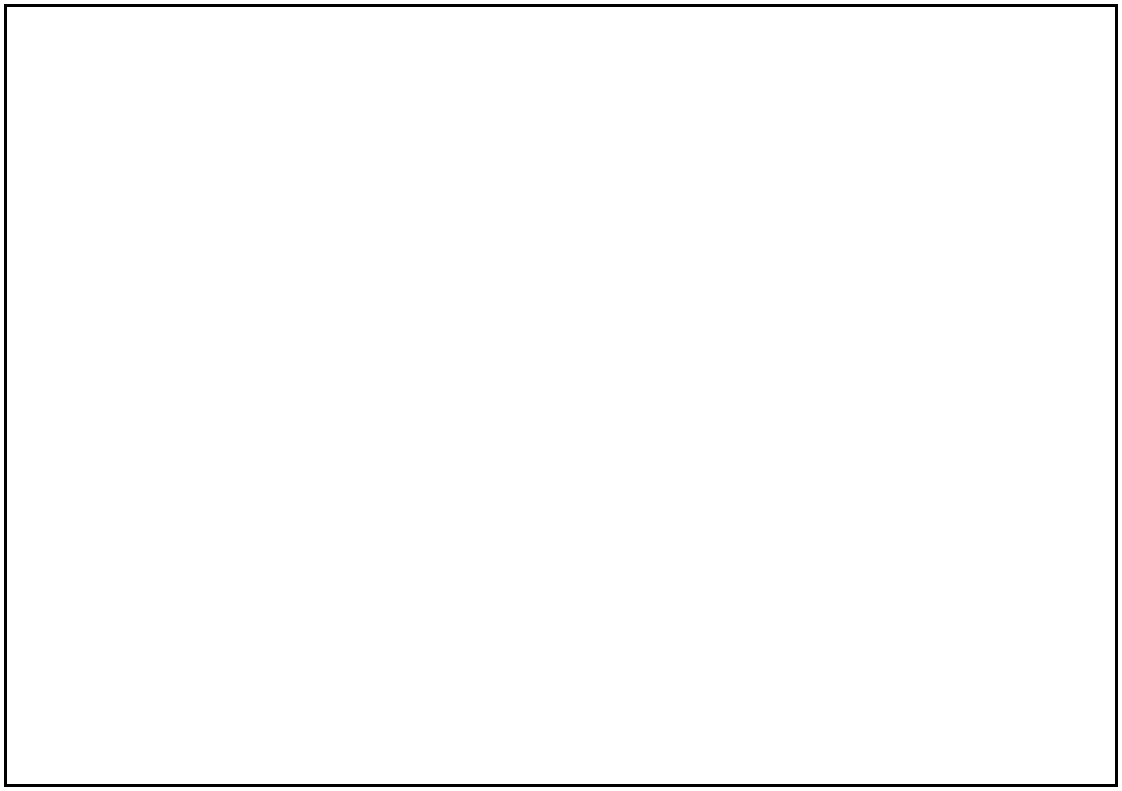


Figure 5: Brion Gysin and William Burroughs using the Dreamachine, c.1964

This research seeks to reverse this logic by exposing and examining the workings of the apparatus. In keeping with the focus of my own practice, this contextual review will consider a particular mode of apparatus-based practice, whereby artists make or modify apparatuses for the generation and mediation of experience. This creates a dialectical viewing experience in which the viewer's attention oscillates between the apparatus and its effects. It therefore constitutes an expanded conception of the apparatus that operates in relation to the spectator, and can be considered in terms of its effects upon their perception.

The conception of the apparatus employed here is in perpetual motion; it is a term that slips between definitions and disciplines. This reflects not only my application of the term beyond the media-specific bounds of photography and the moving image, but also in terms of its ostensibly synonymous relation to ideas of 'the machine'. As discussed earlier, I am informed by Flusser's distinction between the apparatus and the machine, even though many of the artists I will be discussing here refer to the 'machine' when describing their practice. The works that I will be discussing produce images and experiences by means of an apparatus, although these do not necessarily take the form of photographs, films, or video. In this way, I will demonstrate that it is the logic of the apparatus that underlies these practices.

I will consider different modes of the apparatus in the work of three contemporary artists. These are the Optical Apparatus in the participatory works of Carsten Höller; the Embodied Apparatus in the video installations of Pipilotti Rist; and the Spatial Apparatus in the immersive installations of Olafur Eliasson. These categories are used here as interpretive lenses to articulate specific aspects of these artists' practices, and to throw light on the viewer's engagement with the apparatus constituted within their works. To paraphrase Vilém Flusser's formulation, these artists implicate the viewer in an 'apparatus-audience complex'. In their works, the viewing subject does not merely encounter an object, but actually becomes a functionary of the apparatus.

2.1 The Optical Apparatus: Carsten Höller

Carsten Höller's practice enacts the spectacle of science in the gallery, with the controlled conditions of the white cube substituting for those of the laboratory. Höller draws on scientific principles of perception and illusion, such as the light-based Phi phenomena and the Flicker effect, as well as spatial illusions such as the Doppler effect and Zollner Stripes, to alter the perceptions of his audience.[2]

The relationship between artwork and scientific experiment is often direct, as in his ongoing project *Upside Down Goggles* (1994-2012). This work restages psychological and perceptual experiments performed by George Stratton in the late 1800s. As the title suggests, these goggles employ prisms to turn the user's view of the world upside down. In turn, they demonstrate Maurice Merleau-Ponty's observation: 'perception is not an act of understanding. I have only to look at a landscape upside down to recognize nothing within it.'[3]

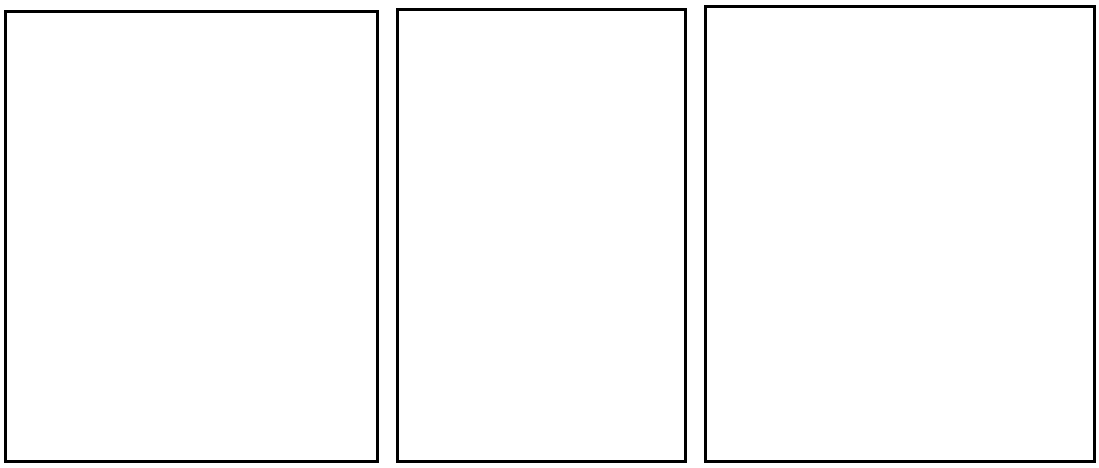


Figure 6: Carsten Höller *Upside Down Goggles 2011 version; Images by visitors to the exhibition Carsten* Höller *: Experience, New Museum 2011*

The purpose of Stratton's original experiments was not merely the upending of vision, but to examine its long-term effects in order to ascertain the process of perception. Stratton's experiment demonstrated that the retina registers imagery 'upside down'; this vision is then processed and inverted by the brain. The upside-down goggles reverse this reversal, forcing us to see the world upside down. Stratton showed that after extended use (eight days in his

original experiment), the brain adjusts and stops inverting the image, thus enabling the wearer to see the world 'right side up' despite the goggles. If they are removed at this point, the subject will see the world 'upside down' – without the filtering of the goggles, but through the altered actions of their own perception.[4]

The images uploaded by users of the *Upside-down Goggles* to the exhibition blog for Höller's 'Experience' survey exhibition in 2011 highlight the difference between experiment and re-enactment.[5] Without the extended duration of Stratton's experiment (but with the addition of pre-participation waivers and a credit-card hold in anticipation of any damages to the equipment), Höller's version of the experience was a short and sociable one, in which viewers became both spectator and spectacle.

Höller's restagings and reintepretations of experiments and principles consistently undermine, as much as they illustrate, the processes upon which they are based. In contrast to a traditional scientific pursuit of knowledge, Höller frequently characterises his work as a 'laboratory of doubt'; not a site for truth, but for its undoing.[6] The doubt enacted in Höller's practice includes the possibility that his devices do not have the intended effect, or at least that their effect is often subjective and variable between test subjects-cum-gallery goers. As Höller himself has written (in a scathing critique of his own work published under a pseudonym): 'Höller's exhibits […] do not "work", however much they represent – and are themselves – working mechanisms. […] These objects are nothing more than rotating devices, flashing lights and angled mirrors.'[7]

These same 'rotating devices, flashing lights and angled mirrors' act upon the perception and psychology of viewers, often in unsettling and disturbing ways. For example, in the installation *Y* (2003) the viewer's spatial perception is distorted by flashing lights as they make their way through a branching tunnel. This work also indicates why Höller's practice has been described as a 'fun-house version of contemporary art', with emphasis on his works' dual nature as 'part science-fair project, part theme-park attraction.'[8]

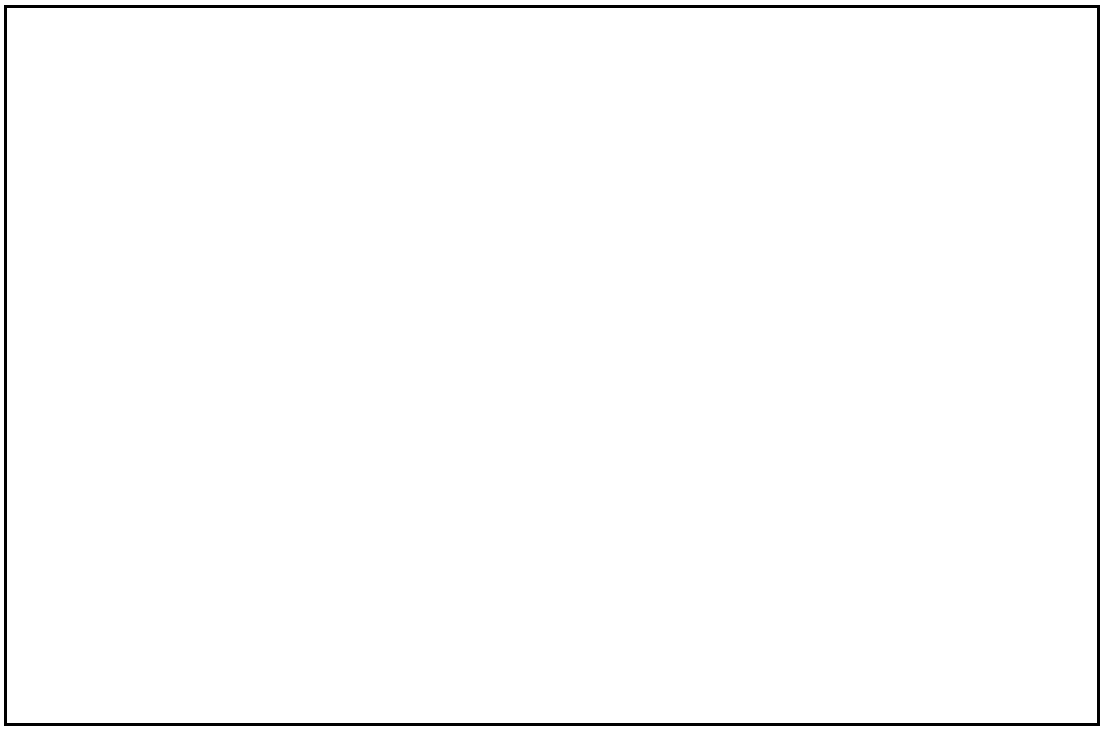


Figure 7: Carsten Höller *Y* 2003

In exhibitions such as *Amusement Park* (2006), this characterisation is literally true as Höller made use of modified theme-park attractions to destabilise his audience (or at least their expectations).[9] He defused the 'voluptuous panic' that Roger Caillois associated with the 'powerful machines' and 'stimulating contraptions installed at fairs and amusement parks'[10] by reverse-engineering some Amusement Park stalwarts into slow motion. These included *Bumper Cars* that travelled at around three metres an hour and the pseudo-scientifically named *Gravitron,* reduced to making one rotation every ten hours.[11]

The slow motion effect of these rides reinforced the distinction between motion and velocity, as emphasised by the 19th Century scientific discipline of kinematics. As Lynda Nead has shown, kinematics played itself out not only in the developing scientific applications of technical images (exemplified by the work of Etienne Jules-Marey), but also in the popular entertainments of fairground attractions, including the pedestrian diversions of the mechanical staircase and the moving pavement.[12] The assertion that these early technologies of fairground entertainment transformed the spectator into a participant is frequently echoed in discourse around Höller's works.[13]

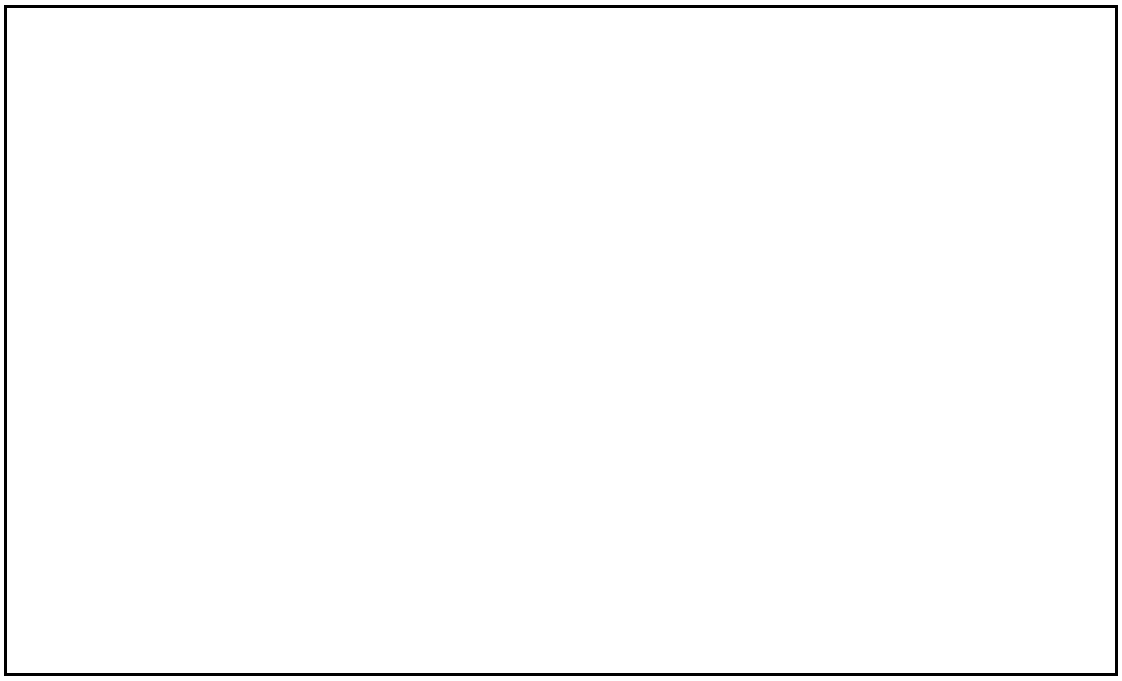


Figure 8: Carsten Höller *Gravitron* 2006

Similarly, Carsten Höller's works are generally framed in terms of participation and activating the spectator.[14] As Höller expresses it, his works are characterized by 'the fact that they're machines or devices intended to synchronize with the visitors in order to produce something together with them. They aren't objects that can be given a meaning of their own.'[15] Yet Höller has also claimed that the experience of watching his fairground apparatuses working or being used is as important as using them.[16] This dialectical experience, of viewing both the apparatus and its effects, constitutes Carsten Höller's 'Art of Attractions', and echoes Tom Gunning's assessment of early cinema spectatorship. Gunning defined the early period of cinema as 'The Cinema of Attractions', when the actual technology was still something of a fairground attraction and drew audiences to see 'the newest technological wonder' rather than the films it presented.[17] It is characterized by a particular form of address to the viewer, which is not so much voyeuristic as exhibitionist.[18] Höller's works similarly address the spectator in a way that both exhibits to them and invites them to make an exhibition of themselves.[19]

Höller's works activate and involve their spectators so that they become part of the work. As he has stated: 'the real material I'm working with is people's experience.'[20] If Höller's audience is his material, and his works act upon their perception in order to effect a transformation, then in becoming a functionary of his apparatus-audience complex can the spectator be thought of as an assisted readymade?

The readymade has been traditionally posited as an object that can critique or subvert the institution's ability to confer the status of art upon an object, or as a bringing together of 'art' and (everyday) 'life'. Höller's works are often seen in this light, evidenced by his inclusion in the core group of artists discussed under Nicholas Bourriaud's rubric of 'Relational Aesthetics.'[21] Bourriaud suggested that these artists created 'micro-utopias' within gallery spaces by introducing elements of freedom and play. Yet in contrast, Höller asserts that the institutional frame reaffirms or exaggerates the object. In discussing his work *Frisbee House* (2000), he states that 'the awareness of the act of playing is increased by unusual circumstances and curious spectators,' and that the 'estranged context' of the museum 'makes [the work] even more about playing Frisbee' – it transforms the Frisbee into a 'hyper-Frisbee'.[22] In making the viewer the subject of playful perceptual experiments, Höller's works transform the viewer, like an assisted readymade, into a hyper-Spectator.

Höller's practice seeks to 'bring to light the tricks within' our own perceptual apparatus; to undermine our confidence in what we see, and more importantly, what we expect to see. He subverts the attractions of the theme park while also destabilising the fixity of scientific method. Höller therefore creates a situation in which, in line with Flusser's assessment, 'science will be seen as a kind of art (as an intersubjective fiction), and art will be seen as a kind of science (as an intersubjective source of knowledge)'.[23] This is not the product of an opposition between the seriousness of science and the fun of the fairground attraction, but rather their coming together in the form of an apparatus-audience complex. This complex offers his audience a wild ride, but with no guarantee that it will be either enjoyable or spectacular.

2.2 The Embodied Apparatus: Pipilotti Rist

Like the works of Carsten Höller, Pipilotti Rist's immersive installations and bodily apparatuses playfully probe the perceptions of her audiences. The title of her 2011 exhibition *Eyeball Massage* conjures up an image of deep-tissue therapy for the vision, while also recalling the perceptual self-experiments of scientific figures such as Isaac Newton, who prodded and contorted his own eyeball in the development of his theory of Opticks.

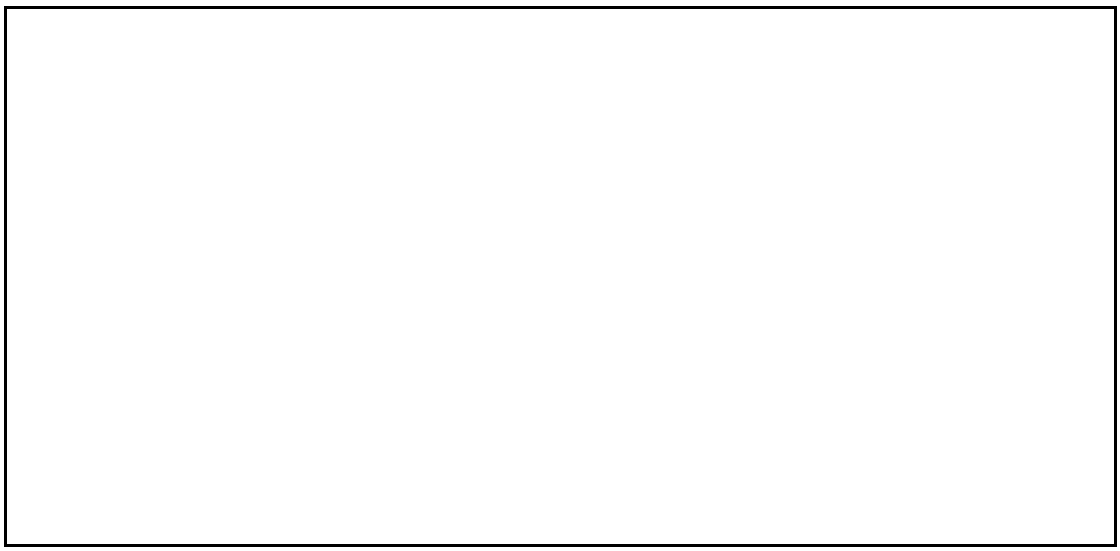


Figure 9: Pipilotti Rist *Eyeball Massage* 2001 exhibition view, Hayward Gallery London

Rist often relates the saturation and intensity of her imagery to afterimages. This comparison brings her works closer to the experiments of Sir David Brewster, Joseph Plateau and Gustav Fechner, who all damaged their eyesight through overexposure while studying their own retinal afterimages.[24] These self-harming experiments form part of nineteenth century science's attempt to quantify and 'regiment' the emerging notion of an 'autonomous subjectivity'.[25] They emerged from a scientific approach that Vilém Flusser described as 'an attack on the world of bodies' with the 'mysterious double purpose of understanding and modifying that world.'[26] It is this autonomous subjectivity that is celebrated in Rist's video installations.

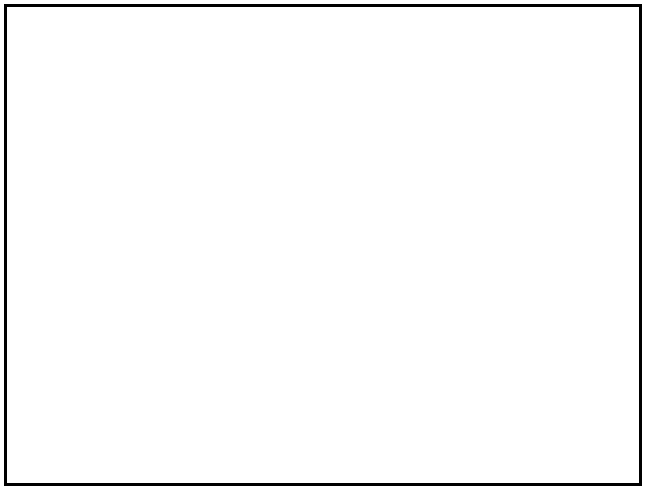
Rist often relates her work to afterimages and the inner visions of hypnagogic states, the abstract patterns seen when on the verge of sleep; the 'phantasmagoria' of 'luminous dust' that Henri Bergson believed to be the stuff of which dreams were made.[27] In comparing her works to the 'after burn that you see [when you close your eyes], that juddering of the nerves under the eyelids,'[28] Rist returns us to the figure of a viewing subject with closed eyes. As with Gysin's Dreamachine, this is not a means of shutting out the world, but a gesture that turns perception inward.[29]

Unlike the apparatuses of Höller and Gysin, however, Rist's perceptual experiments are performed through the mediating apparatus of video. This places her practice directly in dialogue with the broader media sphere and popular culture.[30] On the subject of her engagement with the apparatus, Rist has commented:

> I want people to pay attention to technology, to register its limits and its potential for deceit … people should be more aware of the distinction between technological devices themselves and their virtual content. They should be aware of technology as a simple 'object', as the furniture of everyday life. [31]

Accordingly, my discussion of Rist's work will primarily focus on the 'technical devices themselves' and the embodied forms of engagement that are encouraged by her use and misuse of the apparatus.[32]

The apparatus literally takes the form of 'furniture' in works such as *Funkenbildung der domestizierten Synapsen (Sparking of the Domesticated Synapses)* (2010). Screens and projectors are merged with everyday objects, in this case a watering jug and vase. These dioramas of the domestic provide a setting for the intimately-scaled projection of stray thoughts and fleeting image impressions, like a day-dream superimposed on daily routines.



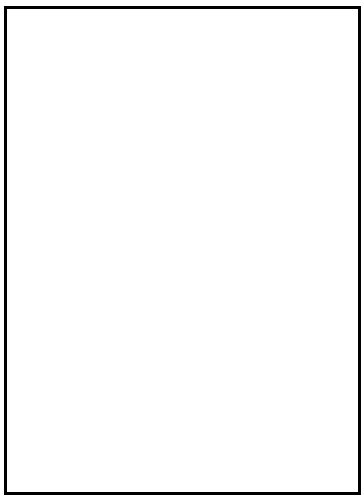
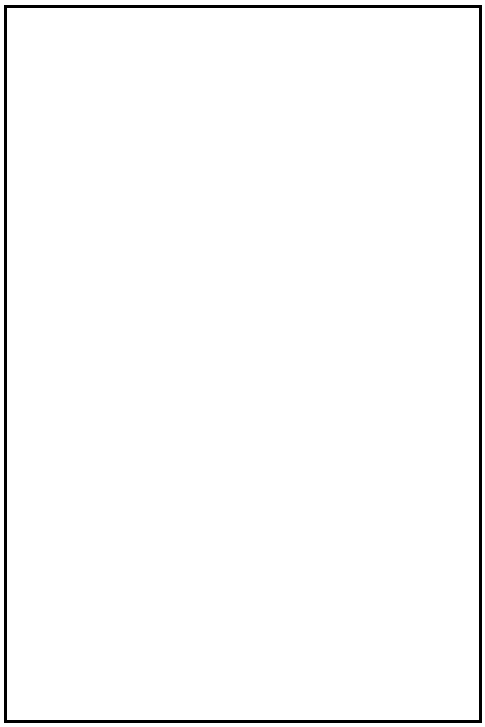


Figure 10: Pipilotti Rist *Sparking of the Domestic Synapses* 2006

Figure 11: Pipilotti Rist *Lap Lamp* 2010 design

In other works it is the body of the viewer that is incorporated into the apparatus as a projection screen. In *Lap Lamp* (2006), the spectator is invited to sit in a chair placed by a modified lamp, which projects images onto the screen that is formed by their legs. Impressionistic fragments of natural forms are thus mapped onto the body of the viewer. To view the work is quite literally to look at one's own body; the spectator must render themselves open to it through their body.[33]

The ideas of apparatus-as-furniture and body-as-trace are registered in Rist's *Massachusetts Chandelier* (2010), in which an array of second-hand underwear is suspended to form a hovering screen. The undulating surfaces and varying colours and tones of this screen resist the high-key imagery that is projected onto it, which is abstracted into a play of shifting, coloured lights. In *Eindrucke Verdauen (Digesting Impressions)* (1993) the apparatus takes the form of a round monitor that weighs down a bright yellow swimsuit with its bodily mass. The swimsuit complicates the act of viewing, veiling a form of embodiment not normally discussed in polite phenomenology; that is, the progress of an endoscopic camera through the digestive tract.



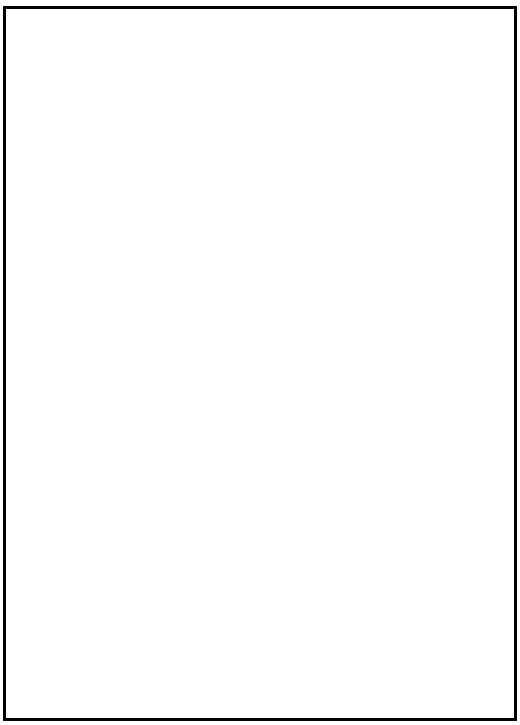


Figure 12: Pipilotti Rist *Massachusetts Chandelier* 2010

Figure 13: Pipilotti Rist *Digesting Impressions* 1993

These works do not so much encourage a dialectical viewing experience, in which the viewer oscillates between apparatus and effect, as incorporate the apparatus into its effects, making it an integral part of the work. Rist conflates and layers experiences of culturally 'private' spaces, such as the interior of the body, and the world as perceived and mediated both by cultural norms and by the technology itself. In doing so, Rist instead promotes an oscillation between inner and outer experiences. This is consistent with her stated desire: 'to create spaces for video art that rethink the very nature of the medium itself […] to discover new ways of configuring the world, both the world outside and the world within.'[34] The process of reconfiguring the apparatus that mediates our experience becomes a means of reconfiguring the world itself.

In Rist's hands, the medium of video has been likened to 'a soft, three-dimensional material that can be pushed, pulled, telescoped, and collaged.'[35] Her rethinking of the video medium is also a thinking outside of the 'black box', described by the artist as a 'melting with the physical environment' to

create ‘moving pictures with three-dimensional life.’[36] Immersive video installations such as *Lobe of the Lung* 2011 (fig.14) consist of multiple screens that bleed into one another, and across which images of discontinuous body parts are in motion, mirrored, duplicated and dispersed. The viewer lies within the cushioned space, surrounded by projections. Such works move the apparatus away from both the rectangular frame of the video and the square units of architecture, to create a heightened full-body experience for the spectator.[37]

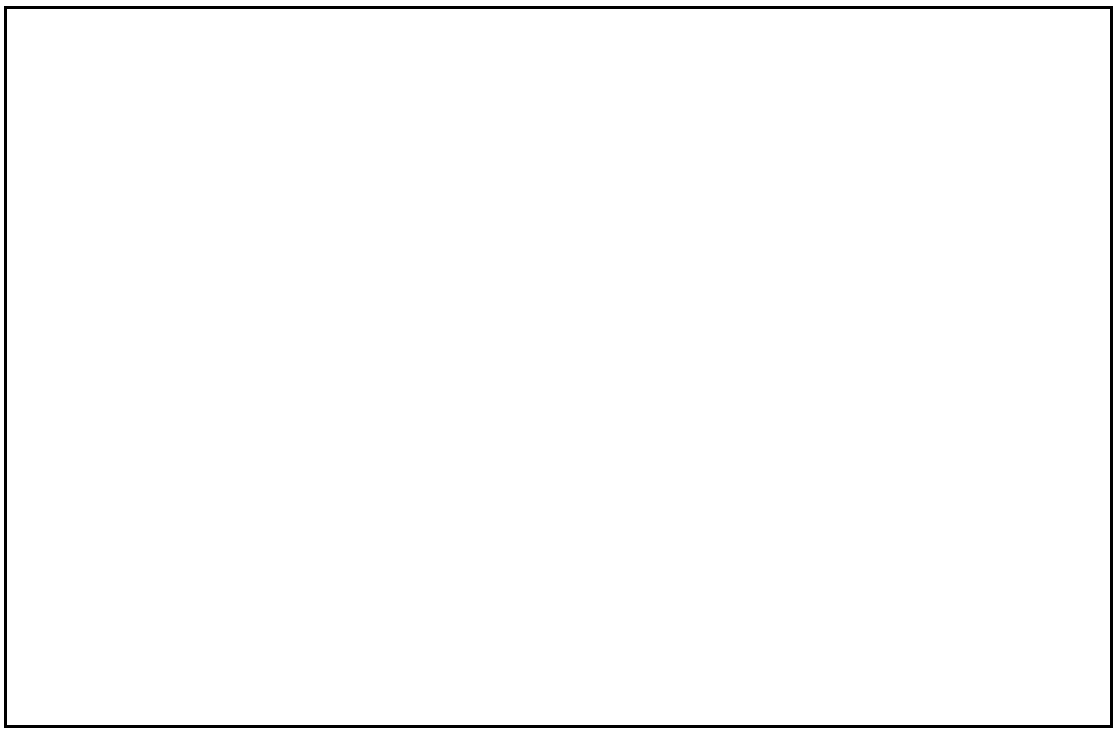


Figure 14: Pipilotti Rist *Lobe of the Lung* 2011

The spatial dimensions and full-bodied experience of Rist’s work contrast sharply with the model of spectatorship developed in cinema theory. This contrast would seem to be reflected in Margaret Morse’s discussion of video installation. For Morse, the visitor to a video installation is ‘enclosed within an envelope of images, textures, and sounds’ and ‘is *in* the piece as its experiential subject, not by identification, but in body.’[38] Here, video installation is characterised as an art of ‘presentation’ that situates the visitor within real experiential space. This is opposed to the cinema, an art of ‘representation’, which portrays an experiential space that can only be

accessed by the spectator's identification with the apparatus. Like Baudry, Morse draws on the allegory of Plato's Cave to describe the separation that the cinematic apparatus enacts between the worlds of perception and representation:

> The machinery that creates the vision of another world is largely hidden, allowing the immobilized spectator to sink into an impression of its reality with horror or delight but without danger from the world on view … Cinema spectators immobilized in darkness were like the prisoners in Plato's Cave, not held in place by chains but by machines of desire.[39]

This 'Plato's Cave' model of cinematic spectatorship is therefore one in which the apparatus manufactures desire and visual pleasure, lulling the viewer into a dream world that is a mere impression of reality.

The immersive video installations of Pipilotti Rist present something of a paradox in relation to this model. The apparatus is an important part of the viewer's experience, whether through its physical presence, its absorption into an object or extension into an architectural environment. Rather than maintaining the monocular viewpoint offered by the Plato's Cave model, apparatus and image are decentred, leaving the viewer free to roam and spatially engage with the work. However, the apparatus that activates this engagement is unapologetically a machine of desire and visual pleasure. It creates both a physical space *and* a projected reality into which the spectator can sink with delight.

Further to this, the spaces that Rist creates in her work, combined with the imagery that floods them, reproduce the conditions that Robert Smithson designates a 'Cinematic Atopia'. He states: 'All is out of proportion. Scale inflates or deflates into uneasy dimensions. We wander between the towering and the bottomless. We are lost between the abyss within us and the boundless horizons outside us.'[40] Smithson's archetype of a spectator 'wrapped in uncertainty'[41] by the immobilizing stupor of the cinematic experience, is mirrored by Rist's distortions of scale and proximity, her

creation of immersive installations that leave their spectator with 'no conception of size,' and 'free to imagine [themselves] as infinite.'[42] Therefore, the qualities that Morse and Smithson critique in cinema are made productive in Rist's works through the viewer's spatial engagement with the apparatus.

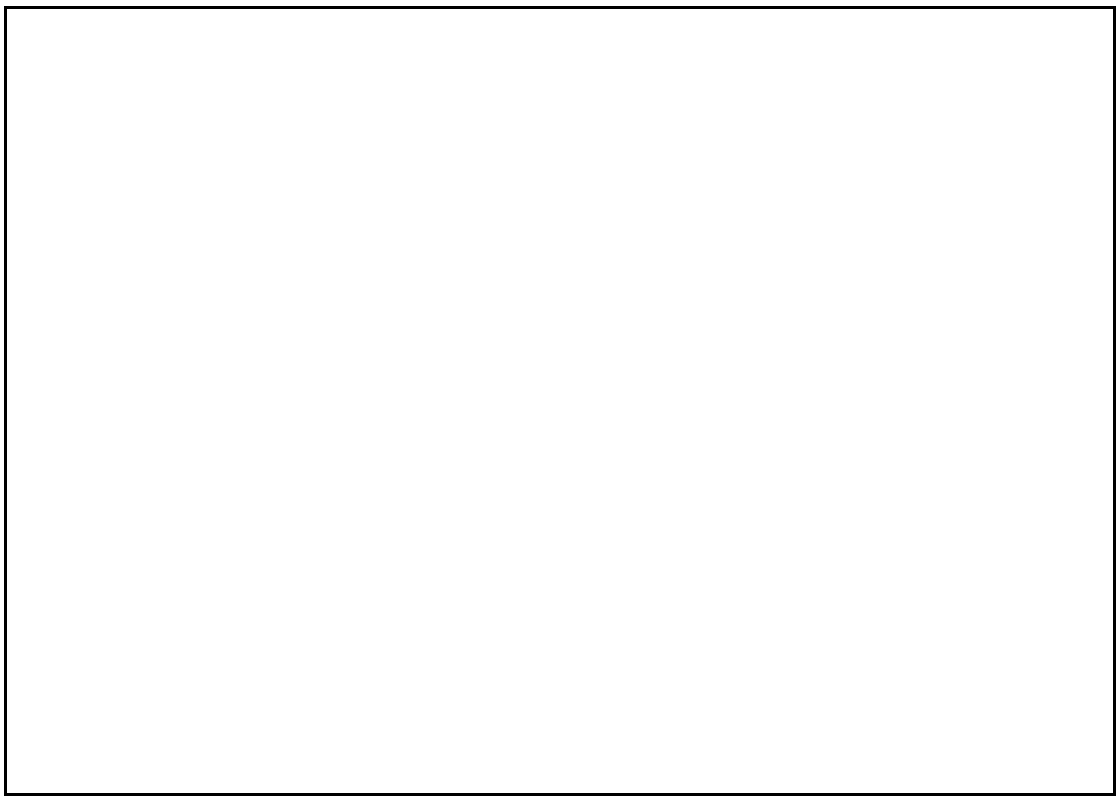


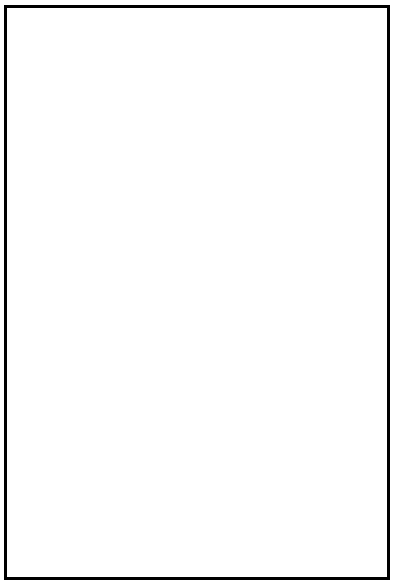
Figure 15: Pipilotti Rist *Lobe of the Lung* 2011

In Rist's immersive installations, the elements of the cinematic *dispositif* are distorted and dispersed. The elements of physical and visual experience form a continuum, a stream of embodied consciousness that reflects and mirrors the dynamic flux of perception. The spectator becomes an active and embodied perceiver. This is a whole-body perception, such as that described by Henri Bergson, an experience of:

> [A] system of images which I term my perception of the universe, and which may be entirely altered by a very slight change in a certain privileged image—*my body*. This image occupies the center; by it all the others are conditioned; at each of its movements everything changes, as though by a turn of a kaleidoscope.[43]

The figure of the kaleidoscope is a highly appropriate one in relation to Rist's frequent fragmentation, mirroring and crystallisation of moving images. For Jonathon Crary, the development of the kaleidoscope in the early 1800s exemplified 'the "uprooting" of vision from the more inflexible representational system of the camera obscura.'[44] It is therefore an apparatus that offers a representational system distinct from that of the cinema, like Rist's decentred installations. The kaleidoscope's arrangement of mirrors and prisms also collapses inner and outer spaces into a single, though multi-faceted, image.

As Crary also highlights, however, its inventor David Brewster saw the kaleidoscope as a means of subjecting perception to the logic of industrialization, comparing his invention to engines of industrial manufacturing, and asserting: 'it will create in an hour, what a thousand artists could not invent in the course of a year.'[45] It is an apparatus that does not mediate or simulate reality, but dissembles it into fragments that are then synthesised in an automated process. It therefore provides a basic model for an externalised, technological vision.



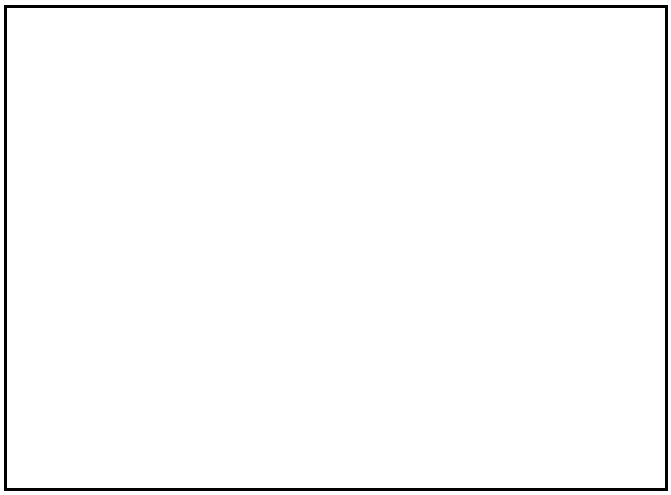


Figure 16: Pipilotti Rist *Homo Sapiens Sapiens* 2005

Figure 17: Dziga Vertov *Man with a Movie Camera* 1929

The conditions of such an augmented, technologically mediated vision were ecstatically proclaimed by Dziga Vertov in his 1929 film *Man with a Movie Camera.* Elsewhere, he characterised it as follows:

> I am a mechanical eye. I, a machine, show you the world as only I can see it. Now and forever, I free myself from human immobility, I am in constant motion, I draw near, then far away from objects, I crawl under, I climb onto them … I plunge and soar together with plunging and soaring bodies ... free of the limits of time and space, I put together any given points in the universe, no matter where I've recorded them.[46]

The sweeping, gliding, and crawling movements catalogued here certainly convey the spirit of Rist's camerawork.[47] But contrary to Vertov's analogy of the 'mechanical eye', for Rist it is the human eye that is 'like a blood-fuelled camera'.[48] For her, it is therefore not a matter of 'showing the spectator the world as only the mechanical eye can see it,' but of bringing the mechanical eye closer to the state of human perception, with all the muddled, fragmentary, distracted and distorted misperceptions that this implies.

Far from simulating objective reality, Rist seeks out corollaries for subjective perception. In order to do this it is necessary: 'to enter into the machine, to challenge it from within and so discover pictures that […] look very similar to our own subconscious.'[49] In this way Rist 'plays against the apparatus', as Flusser enjoins envisioners to do. Her works do not cast technical images as simulations of reality, but as experiences that, as in Flusser's view, affect us as concretely as objects.[50] Pipilotti Rist explores the apparatus as an extension of subjective consciousness and as the furniture of everyday life. In doing so her works both reflect and generate new experiences for their audiences, in both body and mind.[51]

2.3 The Spatial Apparatus: Olafur Eliasson

Olafur Eliasson's immersive and perceptually-focused installations consist of experiences that are produced by means of an apparatus. In keeping with Flusser's definition of technical images as 'images produced by means of apparatus', they can be considered real time-and-space technical images that establish a specific relationship with their audience. Flusser has argued that 'technical images signify models, instructions about the way society should experience, perceive, evaluate and behave. They signify instructional programs.'[52] I will explore this dynamic in relation to the particular construction of the apparatus that is embodied in Eliasson's works.

Figure 18: Olafur Eliasson *Your Sun Machine* 2001

The experiences produced in Eliasson's installations are frequently reliant on the rhetoric, if not the physical form, of machines and apparatuses to create their special and spatial effects. This is so even when the work consists of a seemingly 'dematerialised' experience, as in *Your Sun Machine* (1997). This simple intervention of a hole cut in the roof of the gallery created a pool of light that tracked its way across the gallery space each day. The importance of the apparatus is foregrounded in the following statement by Eliasson:

> I consider the works as sort of 'phenomena-producers', like machines, or stage sets […] I need some media, I need some 'stuff' to create a situation. I need a machine to create a phenomenon in order to have an experience.[53]

Eliasson's reference to his phenomena-producing machines as 'media'

suggests that he sees the apparatus itself as the medium; both in the sense that it provides the material support for the work, and in that it frames and mediates the viewer's experience in the work.

The apparatus in Eliasson's installations, like those of Carsten Höller, require the viewer to 'complete' the experience. Eliasson frames this as a dialogic relationship between viewer and environment:

> If the public gets involved in a stimulating situation, the situation "commits itself" in return. There's a reversal of subject and object here: the viewer becomes the object and the context becomes the subject. I always try to turn the viewer into what's on show, make him mobile and dynamic.[54]

The spectacles generated by Eliasson's apparatuses in turn make a spectacle of his viewers, producing the reversal of subject and object referred to here. But I would suggest that there is more to this reversal than 'accidental' performances by audience members, and that it is instead bound up in a particular model of the apparatus.

Flusser writes that technical images are projections that 'must be decoded not as representations of things out in the world but as signposts directed outward [...] What technical images show depends on which direction they are pointing.'[55] This relationship finds literal form in Eliasson's installations. They often feature an apparatus at their centre, and produce what might be described as real-time-and-space technical images.

In this situation, the viewer's experience is organised around the apparatus. With a clear separation between the object and its effects; much like a film projector, the apparatus points past the viewer, into the space. In works such as *Multiple Shadow House* (2010) the viewer must turn their back on the projecting apparatus in order to see its effects, or else oscillate between the two in a dialectical viewing experience. For Eliasson, it is important that the apparatus is on show and forms part of the experience. This differentiates the work from cinema not just spatially, but because it reveals the mechanics behind the illusion.[56]

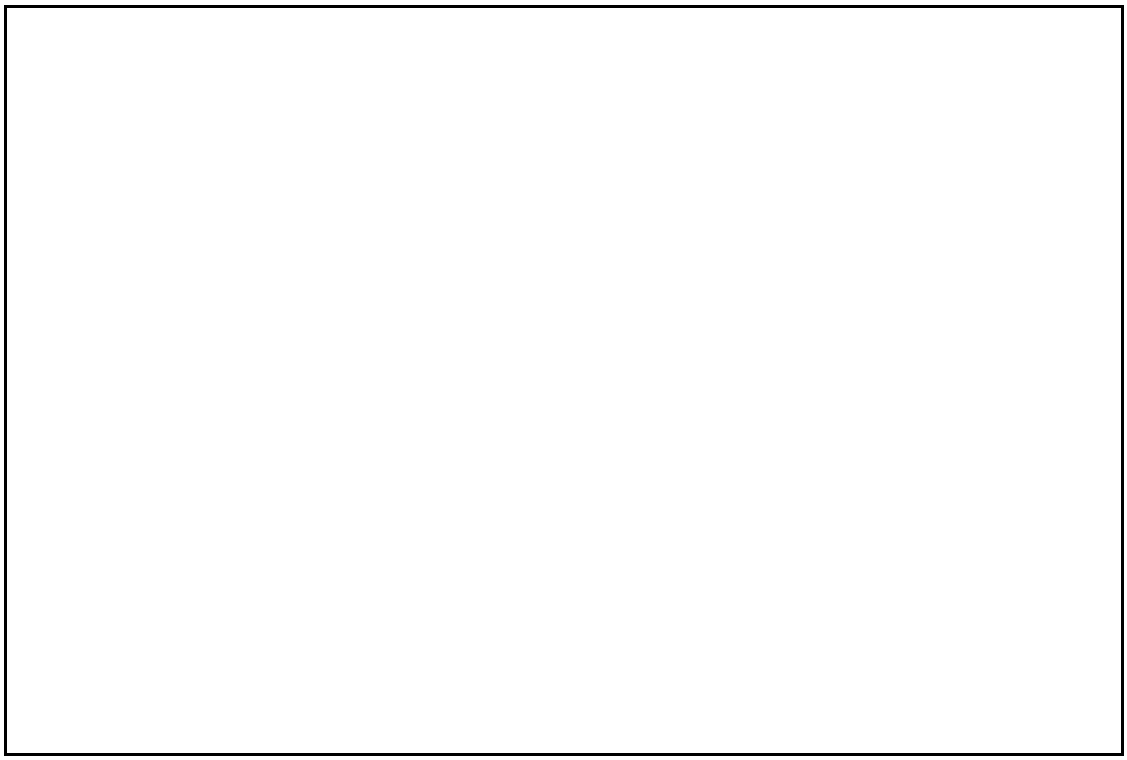


Figure19: Olafur Eliasson *Multiple Shadow House* 2010

Eliasson has stated that his works are 'about structures that pretend or make us believe that we're outside, experiencing the piece, but in fact we're inside, behind the glass, not experiencing anything other than an image.'[57] This description suggests a highly specific conceptual model of a scopic apparatus. It possesses an objectifying gaze and restructures architectural relationships. The apparatus positions itself as viewing subject and thereby reveals visibility as a trap for its viewer. It is a model that recalls another formulation of the apparatus, that of Jeremy Bentham's Panopticon, an apparatus that was discussed by Michel Foucault in 1975.[58]

While Foucault characterized the Panopticon as an architectural *dispositif* geared towards discipline and punishment, it was conceived by Bentham as a structure to obviate the need for punishment. Instead, Bentham's architectural apparatus was intended to transform its subjects by acting upon their perceptions; in Bentham's words, by 'obtaining power of mind over mind.'[59] By creating the possibility, and therefore the illusion, of constant surveillance, the subjects of the Panopticon's institutional gaze would develop self-

discipline. We might then describe Eliasson's model as that of a convivial panopticon; a laboratory not of power, but of engagement, in which the seeing/being seen dyad is not dissociated,[60] but is superseded by the artist's doctrine of 'seeing yourself seeing.'[61]

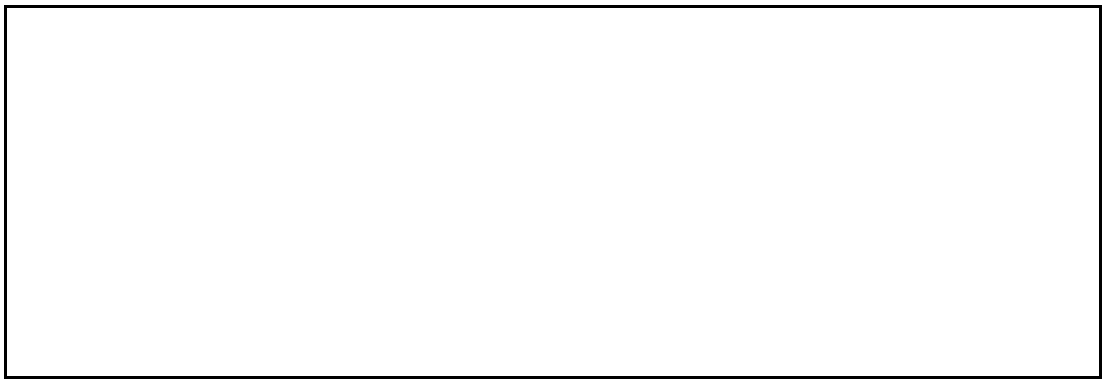


Figure 20: Willey Reveley *Architectural Plans for the Panopticon, commissioned by Jeremy Bentham* (detail) 1791

It is thus a model that does not place the viewer behind glass, but rather reveals this as the default position of perception. As Eliasson has phrased it, his work 'is actually about accepting that our vision and knowledge and experiences are totally controlled.'[62] In this, it pursues what Flusser describes as the essential critical project in relation to technical images: 'to show that in defiance of common sense, they are not mirrors but projections that are programmed to make common sense appear mirrorlike.'[63] Eliasson's work does this by revealing its own illusory nature, and by extension demonstrating the constructed nature of all perception.

While the idea of a convivial Panopticon may seem paradoxical, the architectural form did exist beyond its strictly disciplinary mission. While a penal Panopticon was never actually built in Bentham's lifetime or in his homeland,[64] the term was applied to an institution that opened in Leicester Square, London, in 1854: the Royal Panopticon of Science and Art.[65]

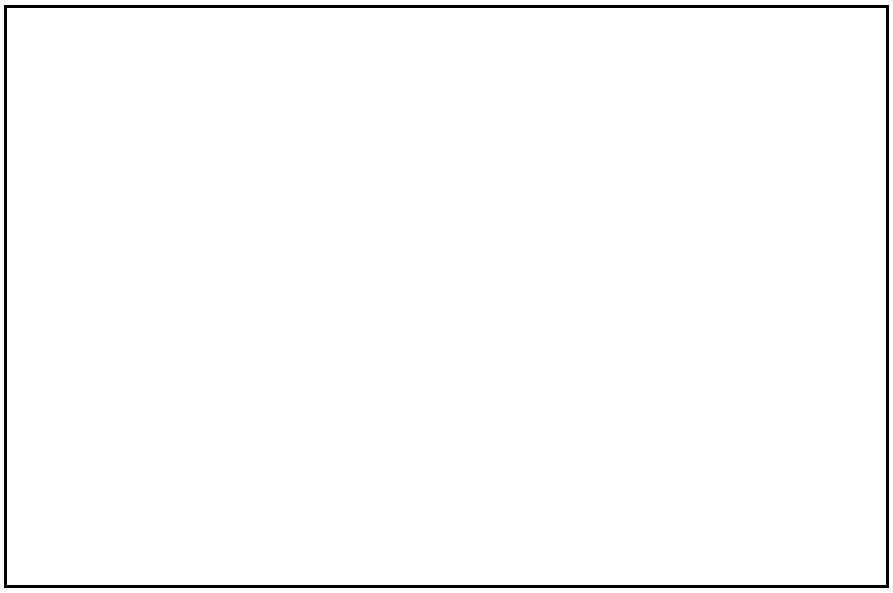


Figure 21: T. Hayter Lewis, *Architectural Plans for The Royal Panopticon of Science and Art,* London 1853

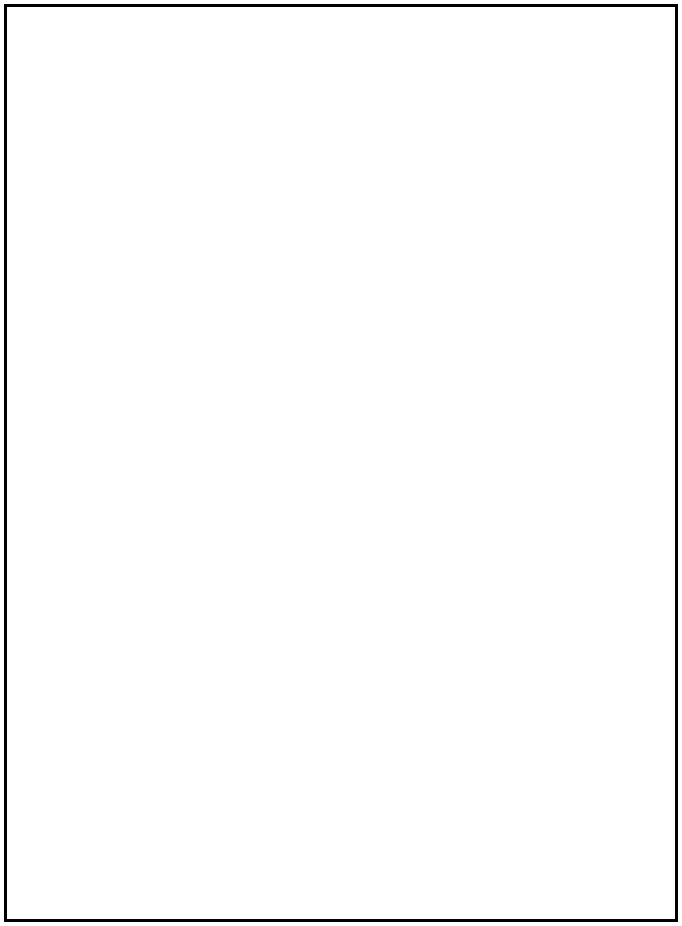
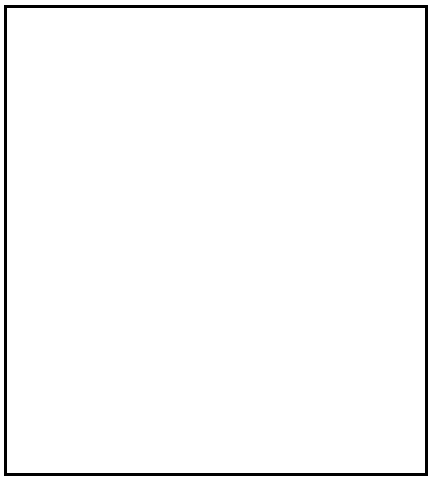


Figure 22: Unknown artist, *Interior View, The Royal Panopticon of Science and Art* c.1854

Operating on a scale somewhere between a cabinet of curiosities and a Universal Exposition, this institution sought to 'extract intellectual profit from pleasure, by bringing forward, on a grand scale, before the public, the principal discoveries in the arts, and showing, practically, the various processes of science now, to the public, a mystery.'[66] These displays included industrial machinery, electrical generators, chemistry demonstrations, optical dioramas and an illuminated fountain.[67] This program, like Eliasson's practice, 'appropriates and reflects the findings of natural science, and transforms them into art, into aesthetic experience, into sensual experience.'[68] Both promise an enlightening fusion of science and art.

The educational artefacts, demonstrations and displays hosted by the Royal Panopticon were part of a broader culture of scientific spectacles, displayed to the public at institutions such as the Royal Polytechnic and the London Institute. These aesthetically pleasing 'mimetic experiments'[69] were an institutionalised form of less respectable practices that included the 'Natural Magic' of the seventeenth century, the Phantasmagoria, and the 'Mechanical Magic' of the late 1800s. Tom Gunning has characterized these displays as a 'world of illusions and entertainments, the display of curiosities and extraordinary devices' featuring 'spectacular demonstrations of electricity, magnetism, and optical phenomenon.'[70] They were populist attractions that both informed the development and influenced the perceptions of early cinema.

While often associated with the dishonest misrepresentations of charlatans and showmen, these performative practices placed a quasi-scientific emphasis on demystification.[71] The displays were usually preceded by an acknowledgement of their illusory nature and incorporated explanations of the mechanics of their spectacles.[72] In this way, performers aligned these fields of 'honest illusion' with the latest advances in science and technology. Similarly, Eliasson's practice distances itself from the culture of spectacle and excess by revealing his illusions and positioning the visual apparatus of the viewer in relation to the technical apparatus of the work.



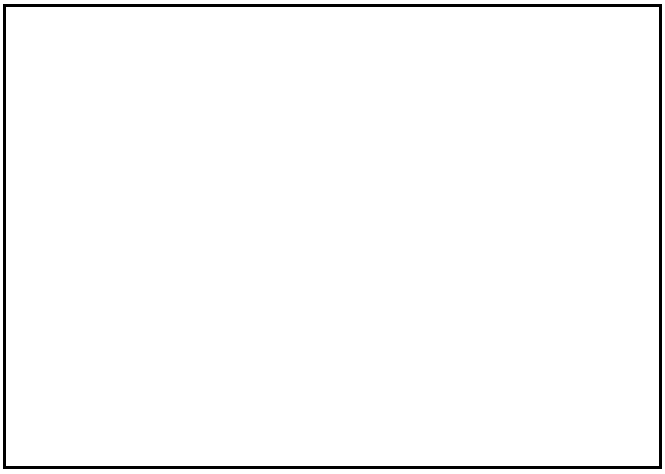


Figure 23: *Advertisement for Phantasmagoria, 'Optical Illusions and Mechanical Pieces of Art'*
Figure 24: Olafur Eliasson *Your Making Things Explicit* 2010

This reflexive positioning of Eliasson's audience is intended to have a transformative effect on their perceptions beyond the experience of the work. This transformation requires an apparatus: 'to render visible those who are inside it; in more general terms, an architecture that would operate to transform individuals: to act on those it shelters, to provide a hold on their conduct, to carry the effects of power right to them, to make it possible to know them, to alter them.'[73] These are the conditions of the Panopticon, as articulated by Foucault.

In this regard, Eliasson's Apparatus-Audience Complex also performs the functions that Tony Bennett has ascribed to emerging public institutions of the Eighteenth and Nineteenth Centuries. These included history and natural science museums, but also popular entertainments such as dioramas and panoramas and the nationalistic spectacles of the Universal Expositions. Bennett describes these institutions as 'a set of cultural technologies concerned to organize a voluntarily self-regulating citizenry.'[74] While directed to very different ends, such educational edifices are also echoed in Eliasson's frequently stated desire to transform the viewer.

To what ends are Eliasson's transformations directed? In this context, it is worth considering an eye-witness account of immersion in Eliasson's apparatus-audience complex. Writing of his experience in Eliasson's *Weather*

Project (2003) at Tate Modern, London, James Meyer relates an initial sense of isolation, noting: 'I am a speck in a distant, cavernous space, surrounded by the minuscule reflections of the many visitors who surround me. I am a remote, disembodied image; I am small.'[75]

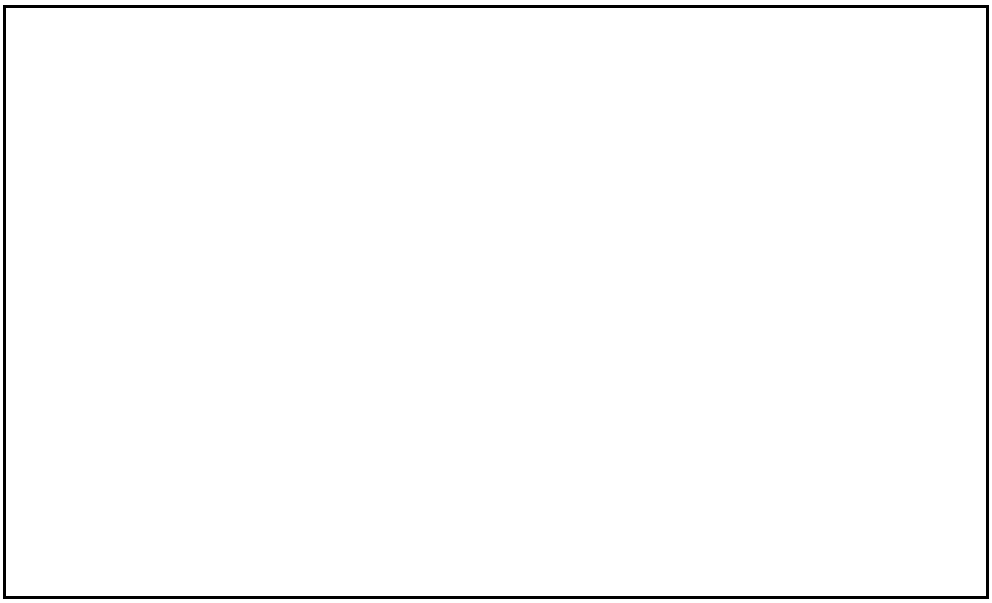


Figure 25: Olafur Eliasson *The Weather Project* 2003

For Meyer, this feeling quickly changes to one of belonging:

> But this initial feeling of disorientation quickly dissipates. Viewers sit down on the cold floor. Others spread themselves out, gazing up at their distant images with narcissistic regard. Groups of friends arrange their bodies in ornamental configurations, opening and closing their limbs to resemble snowflakes and stars. We look at ourselves, and at others looking at themselves. *The Weather Project's* perceptual qualities, as such, are ultimately less compelling than the work's social effects. The enormous Turbine Hall has been transformed into a gathering place, a place to "people-watch," a place to be.[76]

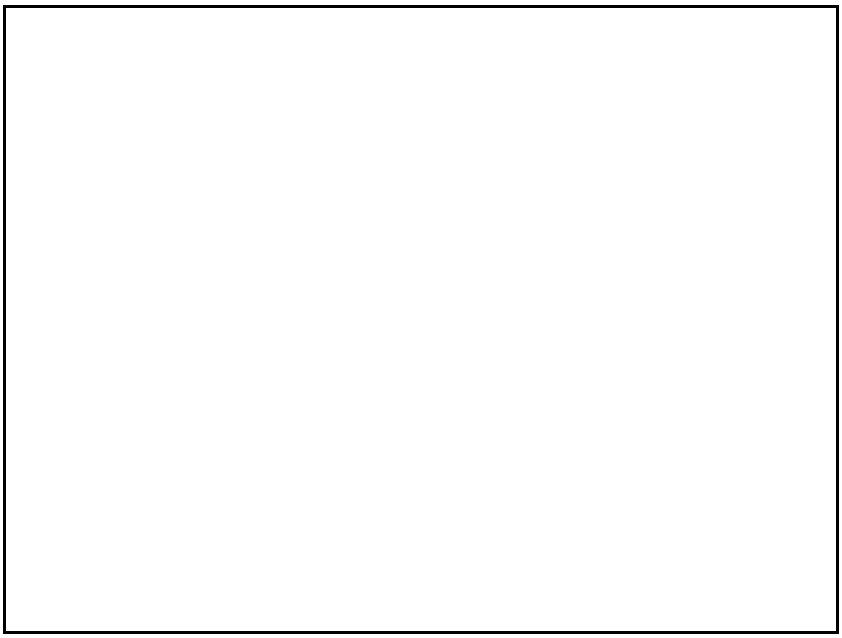


Figure 26: Olafur Eliasson *The Weather Project* 2003

For Eliasson, such observations are entirely the point, for the spectacle is not an end in itself. His apparatuses are not objective but intersubjective.[77] They are intended to have a transformative effect on their audience, both individually and socially. The museum in turn brings to this apparatus-audience complex a space in which this transformation can occur.

3.5 Conclusion

In conclusion, the practices of Höller, Rist and Eliasson employ scientific and technical apparatuses to produce transformative experiences for their audiences. They construct, modify and engage with particular apparatuses to investigate optical, embodied and spatial dimensions of experience, and I have sought to outline historical connections to these tendencies. Each of these artists make their viewers part of the spectacle, yet this is proposed as a liberating imposition that allows the viewing subject to experience and to see differently. Within their apparatus-audience complexes, the viewer is encouraged to play, to bring to light the tricks to be found within the apparatus of their own perception. This is a dynamic that has been essential to my own practice-based exploration of the apparatus.

1 Gysin, B. 1992. *Dreamachine Plans*. London: Temple Press.

2 One of Höller's works employing Zollner Stripes can be seen in the background of fig.6.

3 Merleau-Ponty, M. 2002. *Phenomenology of Perception*. Translated by C. Smith. London: Routledge Classics. 46.

4 See: Stratton, G. 1903. *Experimental psychology and its bearing upon culture*. New York: Macmillan. 146-7; Stratton, G. 1896. "Some preliminary experiments on vision without inversion of the retinal image."*Psychological Review*, 3(6): 611; Stratton, G. 1897. "Vision without inversion of the retinal image."*Psychological review*, 4(4), 341.

5 http://experiencewiki-newmuseum.tumblr.com. Accessed 12/6/2012. The exhibition was held at the New Museum, New York November 2011- January 2012.

6 *Laboratory of Doubt* was a work made by Höller in 1999 as part of *Laboratorium*, an exhibition at the Provinciaal Museum voor Fotografie, Antwerp, exploring crossovers between art and science. The phrase has since become a descriptor for his practice as a whole.

7 Quoted in Mak, B.-B. Ed. 2010. *Carsten Höller: 2001-2010 : 184 Objects, Experiments, Events*. Ostfildern: Hatje Cantz. 82.

8 Larsen, L. B. 2011. "Carsten Höller: Experience." *Artforum international* 50 (1):141.

9 *Carsten Höller: Amusement Park* was held at Mass MOCA, Massachusetts from 21 January-31 October 2006.

10 Caillois, R. 1958. *Man, Play and Games*. Urbana: University of Illinois Press. 23, 25-26. Caillois' text was reproduced in: Höller, C. Ed. 2006. *Carsten Höller: Test Site Source Book*. London: Tate Publishing.

11 Mak, op. cit. 134-143.

12 Nead, L. 2007.*The Haunted Gallery: Painting, Photography, Film c. 1900*. New Haven: Yale University Press. Presaging Höller's proposals for slides as a form of public transport, the mechanical staircase debuted as a fairground ride at Coney Island in 1897, before being adapted for more functional use as the 'escalateur' for the Universal Exposition in Paris in 1900.

13 Ibid. 15.

14 See Bourriaud, N. 2002. *Relational Aesthetics*. Dijon: Les presses du reel; Bishop, C. 2005. *Installation art: a Critical History*. New York: Routledge.

15 Höller quoted in Celant, G. 2006. *Carsten Höller: Register*. Milan: Fondazione Prada.

16 Höller in Morgan, J. 2006. *Carsten Höller: Test Site*. London: Tate Publishing. 7.

17 Gunning, T. 1986. "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde." *Wide Angle: A Film Quarterly of Theory, Criticism, and Practice* 8 (3-4):63-70. 56. Gunning's intention is to create a new cateogrisation that evades the teleological view of pre-narrative cinema as an unevolved form.

18 Ibid. 55. Gunning specifically contrasts this exhibitionist quality to the voyeuristic model described by Christian Metz – see my discussion in Chapter 1.

19 Similarly, the theatrical spectacles that were precursors to cinema usually took place in well-lit spaces, with the ability to watch other members of the audience part of the experience. See Gunning, T. 2009. "The Long and the Short of It: Centuries of Projecting Shadows, From Natural Magic to the Avant-Garde." In *The Art of Projection*, edited

by S. Douglas and C. Eamon, 23-35. Ostfildern: Hatje Cantz Verlag. 23. See also: Elcott, N. 2011. “On Cinematic Invisibility: Expanded Cinema Between Wagner and Television.” In *Expanded Cinema: Art, Performance, Film*, edited by A.L. Rees, D. Curtis, D. White and S. Ball, 29-49. London: Tate Publishing.

20 Rappolt, M. 2006. “Carsten Höller: My Idea of Fun.” *Artreview* 4:48-55. 50.

21 op. cit. 36.

22 Morgan, J. 2003. *Common Wealth*. London: Tate Publishing. 75-6.

23 Flusser, V. 1990. “Memory, Electronic and otherwise.” *Leonardo* 23 (4): 397-399. 399.

24 For detailed accounts of Fechner’s studies in particular, see Crary, op. cit. 141-9; and Kittler, F. 2010. *Optical Media: Berlin lectures* 1999. Malden: Polity Press. 148-9. The outcomes of such experiments are echoed in early video works *Dawn Burn* (1975-6), and *Paris Dawn Burn* (1977) by Mary Lucier, in which she ‘burned’ permanent impressions into, and effectively destroyed, cameras’ vidicon tubes by repeatedly overexposing them to the rising sun. The works *Laser Burning Video* (1977) and *Bird’s Eye* (1978) created similar results using lasers. See Barlow, M. Ed. 2000. *Mary Lucier.* Baltimore: Johns Hopkins University Press.

25 Crary. op. cit. 101. The passage in question describes the work of Johann Friedrich Herbart, a precursor to Fechner et al.

26 Flusser, V. 2005. “Thought and Reflection.” *Flusser Studies* 1 (3). 1. This text transcribes a 1963 lecture by Flusser. It therefore predates his engagement with media philosophy, while also evoking many of the concerns that form part of Flusser’s later work.

27 Bergson, H. 1914. *Dreams*, translated by E. E. Slosson. New York: B. W. Huebsch. 26.

28 Sanders, M. 2006. “Pipilotti Rist: Stay Metal.” *Another magazine* (Autumn/Winter): 426-439. 432.

29 Rist’s interest in perceptual phenomena such as afterimages, as well as in embodied practices such as meditation, were shared by Structuralist film-makers such as Paul Sharits, whose *Flicker Films* are discussed in Chapter 3.

30 Due to their use of music and exploration of affect, Rist’s early single-channel video works and dual-channel video installations were often compared to MTV. Interestingly, this line of discussion of Rist’s works is almost exclusively focused on her ‘cover versions’ of songs by figures such as John Lennon or Chris Isaak, rather than her collaborative production of original soundtracks to her video installations.

31 Obrist, H.-U. 2001. “In conversation with Pipilotti Rist.” In *Pipilotti Rist*, 6-31. New York: Phaidon. 26.

32 For the most part, my focus is also on works produced since 2000, rather than on Rist’s earlier well-known single and dual channel video installations.

33 Merleau-Ponty states: ‘To perceive is to render oneself present to something through the body.’ Merleau-Ponty, M. 2007. *The Merleau-Ponty Reader*, edited by T. Toadvine and L. Lawlor. Evanston: Northwestern University Press. 118.

34 Sanders, op. cit. 431.

35 Aitken, D. 2006. *Broken screen: 26 conversations with Doug Aitken : expanding the image, breaking the narrative.* New York: Distributed Art Publishers. 226. See also Christine Ross’ description that ‘Rist’s installations propel the

image out of the TV box – convulsing floors, walls and furniture as it were – so as to materialize pleasurable fantasies in space. Ross, C. 2001. “Pipilotti Rist: Images as quasi-objects.” *n Paradoxa* 7:18-25. 19.

36 Ross, op. cit. 20.

37 Mascheroni, L. 2011. “Network: Pipilotti Rist.” *Domus* (952):105.

38 Morse, M. 1998. *Virtualities: Television, Media Art and Cyberculture*. Bloomington: Indiana University Press. 156, 158.

39 Morse, op. cit. 159, 160. As Flusser notes, the comparison of cinema to Plato’s Cave is almost unavoidable. To this archetype he adds metaphors of the womb and the crypt, the Cartesian space of gridded and numbered seating, and, most central to his argument, the Basilica, with its twin functions of marketplace and cathedral. Starting from the perspective of a cinema spectator, Flusser locates the ‘gesture of filming” in the act of editing rather than that of recording. See Flusser, V. 1994. *Gesten: Versuch einer Phänomenologie.* Frankfurt am Main: Fischer Taschenbuch Verlag. At the time of writing, an english translation of this text is in development.

40 Smithson, R. 1996. *Robert Smithson, the collected writings,* edited by J. D. Flam. Berkeley: University of California Press. 72.

41 Ibid. 72.

42 Bickers, P. 2011. “Caressing SPACE.” *Art Monthly* (350):1.

43 Bergson, H. 1929. *Matter and Memory*. London: Allen & Unwin. 12.

44 Crary, op. cit. 113. Crary also discusses the positive and negative characterisations of the kaleisoscope in Baudelaire and Marx, respectively.

45 Brewster, D. 1858. *The Kaleidoscope: Its History, Theory and Construction with its Application to the Fine and Useful Arts*. London: John Murray. 136. To this end, he proposes that artists combine the kaleidoscope with devices such as the Magic Lantern, Camera Lucida and Camera Obscura. Brewster’s hopes for artistic applications of his invention prefigure those of Brion Gysin for the Dreamachine – see next chapter.

46 Vertov, D. 1984. *Kino-Eye: The Writings of Dziga Vertov,* edited by A. Michelson. London: Pluto Press. 17-18. A similar comparison has been made by Amelia Jones in her discussion of Rist’s work: Jones, A. 2006. *Self/Image: technology, representation, and the contemporary subject*. New York: Routledge. Of course, in further contrast to Rist, for Vertov the mechanical eye of the camera was to focus on “kino-pravda,” or “film-truth,” perhaps most clearly encapsulated in the documentary form of the newsreel.

47 Rist uses a home-made rig to allow free movement of the camera and obtain unconventional camera angles.

48 Ross, C. 2000. “Fantasy and distraction: An interview with Pipilotti Rist.” *Afterimage* 28 (3):7-11. 9. Rist states: ‘I hope that I can achieve a balance between the camera and the object […] The viewer is the camera, he or she should have the same perspective as the camera.’

49 Sanders, op. cit. 432.

50 Peternak, M. 1988. *Vilém Flusser interviewed by Miklos Peternak*. www.c3.hu/events/97/flusser/participantstext/miklos-interview.html (accessed 3/7/2011).

51 See, for example, her statement that: ‘All of our mental and emotional achievements are, medically speaking, electric. I go on the assumption that video and, even more so, video installations resemble our visual system and the brain lobes in the cranium.’ Roth, E. 2004. “Don't Intimidate the Material: A Conversation with Pipilotti Rist.” In *(Im)Material?,* 8-17. Zurich: Parkett. 15.

52 Flusser, V. 2011. *Into the Universe of Technical Images,* translated by N.-A. Roth. Minneapolis: University of Minnesota Press. 50.

53 Birnbaum, D. 2006. “In conversation with Olafur Eliasson.” In *Press Play: Artists in Conversation*, 175-190. London: Phaidon Press. 179, 185.

54 Obrist, H. U. 2002. “In conversation with Olafur Eliasson”. In *Olafur Eliasson: Chaque matin je me sens different. Chaque soir je me sens le meme,* edited by J. Jacquet, 17-37. Paris: Musee d’Art Moderne de la Ville de Paris. 32.

55 Flusser, op. cit. 49.

56 In an interview with Rochelle Steiner, Eliasson stated: ‘Often people don’t understand the mechanics function, but they still know that it’s made mechanically; that’s enough. Sometimes I’ll just put something mechanical in the space, even if it’s unrelated to the effect being created; the presence of some mechanical device acts as a reminder.’ Steiner, R. 2000. *Wonderland*. St. Louis: St Louis Art Museum. 55.

57 Birnbaum, op. cit. 183.

58 Foucault, M. 1975. *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.

59 Bentham. J. 1995. *The Panopticon Writings,* edited by M. Bozovic. London: Verso. 31. For an overview of Bentham’s thought, and his frustrated attempts to establish a working Panopticon, see Schofield, P. 2009. *Bentham: A Guide for the Perplexed.* London: Continuum. 71-93.

60 Foucault describes the Pantopicon as a ‘laboratory of power’ and as a ‘machine for dissociating the see/being seen dyad’ by allowing the Inspector to see everything without being seen, while the inmate is totally exposed without being able to see. Op. cit, 204, 202.

61 This is a phrase that features prominently and frequently in discussions of Eliasson’s work, relating directly to the phenomenology of Maurice Merleau-Ponty.

62 Olafur Eliasson, in Steiner, op. cit. 57.

63 Flusser, op. cit. 49.

64 See Otter, C. 2008. *Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910*. Chicago: University of Chicago Press. 3-5. While prison designs that enable surveillance are often compared to the Panopticon, the totality of the gaze embodied in the Panopticon has never been fully realised.

65 Despite its name, the Royal Panopticon was a private venture.

66 Unknown. 1850. “The Panopticon of Science and Art.” *The Builder: An Illustrated Magazine* 8 (371): 130.

67 Some of these displays are detailed in Beauchamp, K. 1997. *Exhibiting Electricity*. London: The Institution of Electrical Engineers. 22-3. Like the Universal Expositions mentioned earlier, and in keeping with its imperial title, the Royal Panopticon also featured ethnographic displays, including performances by indigenous colonial subjects.

68 Steinle, C. and P. Wiebel. 2001. “Editorial.” In *Olafur Eliasson: Surroundings Surrounded: Essays on Space and Science*, edited by Peter Weibel. Boston: MIT Press, 12-16. 16.

69 Mimetic experiments sought to recreate natural phenomena within the laboratory, in a comparable way to many of Eliasson’s earlier works. See Rueger, A. 2002. “Aesthetic appreciation of experiments: the case of 18th-century mimetic experiments.” *International studies in the Philosophy of Science.* 16 (1): 49-59.

70 Gunning, T. 2007. “To Scan a Ghost: The Ontology of Mediated Vision.” *Grey Room* 26 (26):94-127. 101.

71 The phrase ‘quasi-scientific’ is often applied to Eliasson’s works. For a discussion of this framing, see Eliasson’s conversation with Philip Ursprung and Anna Engberg-Pedersen in: Ursprung, P. and A. Engberg-Pedersen. 2008. *Studio Olafur Eliasson: An Encyclopedia.* Cologne: Taschen. 333-343.

72 Nead, op. cit. 83.

73 Foucault, op. cit. 172.

74 Bennett, T. 1988. “The Exhibitionary Complex.” *New Formations* (Number 4 Spring):73-102. 76.

75 Meyer, J. 2004. “No More Scale: The Experience of Size in Contemporary Sculpture.” *Artforum International* 42 (10):220-228. 222. The focus of Meyer’s article is actually the increasingly large scale of museum developments, with Eliasson’s *The Weather Project* as an example of the large scale spectacles that such spaces require.

76 Ibid. 222.

77 Flusser, V. and L. Bec. 2012. *Vampyroteuthis Infernalis*. Minneapolis: University of Minnesota Press. 63-4.

Chapter 3: The Apparatus in Practice

Introduction: Key Practice Strategies

My art practice foregrounds the viewer's experience of the apparatus by employing five key practice-led strategies: Playing Against the Apparatus; Replaying the Apparatus; Apparatus and Objecthood; Face to Face with the Apparatus; and Inside the Apparatus. Each strategy articulates an aspect of my working process, and of the audience's relationship to the apparatus in the work. The strategies are not mutually exclusive, but operate in concert to produce a multi-faceted practice methodology. This chapter will articulate these strategies in relation to specific works and explore the ways in which my conceptualisation of the apparatus has developed as a practice methodology in the course of this research. This will contextualise the discussion of works presented in the exhibition *Complex Experience* (2013), consider the ways in which these strategies have been applied and discuss the particular engagements with the apparatus that resulted. This chapter will therefore articulate my engagement with the apparatus as a methodology developed in the context of my own practice.

3.1 *Playing Against the Apparatus*

Vilém Flusser's imperative to 'play against, not with' the apparatus so as 'to bring to light the tricks concealed within'[1] can be seen as a principle that underlies much of my practice. It is also a conceptual operation that finds form in my working processes. My earlier photographic works that involved the manipulation and modification of cameras or lenses exemplify this approach, and in the context of this research, the phrase 'playing against the apparatus' is used to specifically describe works that involve a physical manipulation or reconstruction of technical devices. It highlights my process of modifying cameras and screens, and constructing viewing devices. These include the removal and replacement of lenses, and the conversion of basic digital cameras into stereoscopic viewing devices.

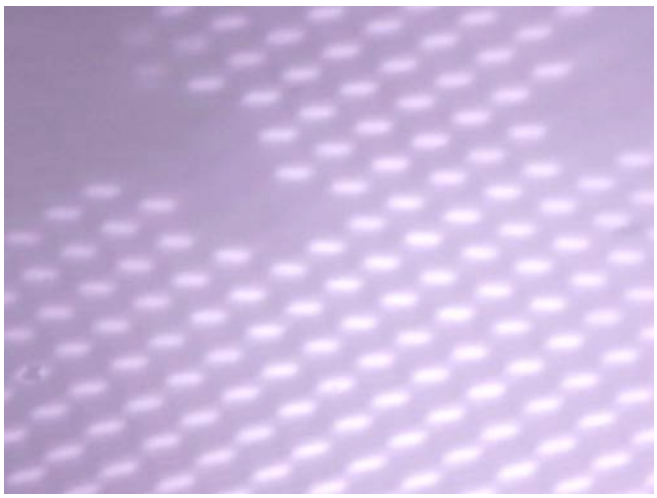


Figure 27: *Stereostereoscope* Process Documentation 2011

Figure 18: *Stereostereoscope* 2011 still from a digital video

The technical images of photography, film and video are often characterised as the product of a 'transparent medium', but in such conceptions the apparatus is situated as a blind spot within the viewer's experience. By intervening in the workings of the apparatus, I am able to disrupt this assumed transparency and highlight the materiality of the technology itself. The apparatus leaves its trace on the images produced and these 'instrumental artefacts' necessarily become part of the spectator's experience.[2] Indeed, they accentuate the process of mediation being staged through the apparatus, and potentially 'animate' our engagement with this process.

When constructing and modifying apparatuses, I often employ basic scientific principles and technologies that are on the verge of becoming obsolete or outmoded. A key reason for this is the rootedness of these technologies in everyday life, for the basic forms of the apparatus that I use are, in Pipilotti Rist's words, 'the furniture of everyday life.'[3] These technologies are often commonplace and familiar, and therefore recognisable to the spectator. There is an aspect of my practice that functions as a makeshift media archaeology, working with the very recently or soon-to be obsolete. Jonathon Crary has suggested that the increasingly short cycles of novelty and obsolescence, inherent in today's technology, have reinvented spectatorship. He writes: 'Life becomes an anxiety-filled sequence of replacements and upgrades.

Perception itself is so closely aligned with these rhythms that one of its main activities is continually adjusting to these shifts and permutations.'[4] This entropic process is an important part of what Flusser calls the photographic program,[5] and is occurring at an increasingly rapid rate.

In Walter Benjamin's view, it was at the twin poles of novelty and obsolescence that technologies and cultural forms held utopian promise. When new they hold the promise of progress and potential, but when absorbed by the dominant culture of capitalism this potential is dimmed. However, as they become obsolete, this promise is released 'like the last gleam of a dying star.'[6] Rosalind Krauss suggests that Benjamin's model of obsolescence 'both frees the outmoded object from the grip of utility and reveals the hollow promise' of the law of commodity production.[7]

There is a different, though not incompatible, perspective on this question in Giorgio Agamben's writings on the apparatus.[8] For Agamben, the apparatus captures elements of human experience and controls its users/subjects, in a process that he describes as 'de-subjectification.'[9] In an action reminiscent of Flusser's description of functionaries of the apparatus, Agamben's apparatus enacts a separation, removing experience from the sphere of use. When something becomes obsolete, in what Agamben describes as a 'museification,' it is removed from use.[10] He argues: 'We must always wrest from the apparatuses – from all apparatuses – the possibility of use that they have captured.'[11] The strategy he advocates in this reclamation project is 'profanation', which is defined as 'a special form of negligence, which ignores separation or, rather, puts it to a particular use.'[12] This is a reclaiming of use, a re-purposing that, like Flusser's model, constitutes a state of play against the apparatus. For Agamben, this play is defined as a 'pure means' that 'emancipates' activity from objective; 'a means without an end.'[13]

Agamben's injunction to 'pure play' hints at the possibility of purely formal play. However, in my own practice, play involves gestures of physical deconstruction that open the apparatus up to a corresponding conceptual deconstruction; a continuum of thought and action. In the concluding sections of his *Towards a Philosophy of Photography,* Flusser specifically refers to

experimental photography as a means of pursuing this kind of play against the apparatus because it is 'the only form of revolution left open to us.'[14] Like Höller, Rist and Eliasson, Flusser therefore proposes a political dimension to such experimentation, which is not aimed at 'changing the world' but transforming the viewer's perception of it. Similarly, my interventions seek to render everyday imagery and experiences strange, and to foreground the materiality of the technology. They introduce chance into the automated workings of the apparatus as a means of reinforcing the relativity and contingency of our relationships to it. In my earlier photographic works this strategy sometimes constituted the entire process. In the specific context of this research, this is a strategy that underlies my approach, but that operates in conjunction with other strategies and establishes a starting point for further engagement.

3.2 *Replaying the Apparatus*

Related to the notions of obsolescence and the practices of media archaeology discussed above, the strategy of 'Replaying the Apparatus' reinterprets earlier artists' engagements with the apparatus, so as to explore and generate new relationships between contemporary experience and historical apparatuses. This includes devices such as Brion Gysin's *Dreamachine,* (1959), which was described by Gysin as 'the first apparatus designed to be viewed with one's eyes closed' for the production of 'inner visions' and 'artistic experiences.'[15] The *Dreamachine* provides an ideal model for the conception of the apparatus as a blind spot, for the light effects it generates can only be experienced by closing one's eyes to the apparatus.[16] The *Dreamachine* creates a flicker effect against the user's closed eyes. The speed of the flicker is synchronised with the brain's alpha waves so as to produce visions and hallucinations. In neuroscience this effect has been referred to as 'photic drive'.[17]

Figure 29: *Dreamachine (lite)* 2011 handcut polycarbonate, record player

Gysin's design was patented and distributed for sale as a d.i.y. apparatus so that anyone who had access to a record player could make a dreamachine. My work *Dreamachine (lite)* (2012) (fig. 29) is also made to Gysin's specifications, but using transparent plastic. This material was employed to play upon the status of Gysin's original apparatus as an object, the effects of which are to be perceived without the object itself being seen. Paradoxically, this material translation removes the functionality of the original device, making it more of an object to be looked at and contemplated in a way that plays upon its own material qualities of reflection and transparency.

The 'photic drive' effect is also a feature in the 'Flicker Films' made by experimental film artists, including Paul Sharits and Tony Conrad. They used the cinematic apparatus of projection to produce a directly 'physical' response in the viewer. Sharits summarised the cinematic *dispositif* of the flicker film as follows: 'the projector is an audio-visual pistol; the screen looks at the audience; the retina screen is a target.'[18] In this way, the Flicker Films aimed to produce an 'inverse projection,' directed at the spectator rather than at the screen.[19]

The most common form of the Flicker Films consists of alternating monochromatic or flatly coloured frames.[20] When viewed as individual frames, the films appear akin to a series of hard-edged abstractions or colour-field

paintings. This formal dimension often situates Flicker and other Structuralist films within a Modernist context. I would argue, however, that the structuralist reductions of the medium are also deconstructions, which break down cinema into an inventory of its effects. This operates in opposition to the dominant form of classical narrative cinema.

As well as focusing on the celluloid of film as a medium, these artists also deconstructed the apparatus, as in Sharits' removal of mechanisms such as the gripper arm and shutter, manipulation of frame rates and distortions of synchronisation. These strategies formed part of an attempt to create a more reflexive and activated viewing experience.[21] They aimed to not only reduce the cinematic experience, but to deconstruct and reveal it. As a counterpart to these mechanical manipulations of the projection apparatus, the individual frames that made up many of the original flicker films were produced via semi-industrial darkroom processes.[22] In contrast, my recent reworkings of this approach record what might be called 'readymade flickers' and analogous effects from the natural world.

The projected video *Flicking Film* (2012) (fig. 30) creates a flicker effect through the simple gesture of recording a hand being waved in front of a camera. The video was projected into a corner that was not visible from the gallery entrance. The viewer's first experience of the work was not the image itself, but its reflected flickering light, an insistent presence that permeated the space.

The work *Photic Drive* (2011) (fig. 31) consists of two in-car DVD screens, mounted back-to-back at some distance from the wall. Each plays the same video: presenting flickering light filtered through the trees recorded from a moving car. The title comes from the neuroscientific term for the 'flicker effect'. The work replays this as an ambient effect that is firmly linked to the apparatus of the screen. My work emphasises the light thrown by the screen as much as the image itself, while the mounting of the two screens and their cabling emphasises the objecthood of this apparatus.

Figure 30: *Flicking Film* 2012 digital video projection, installation views

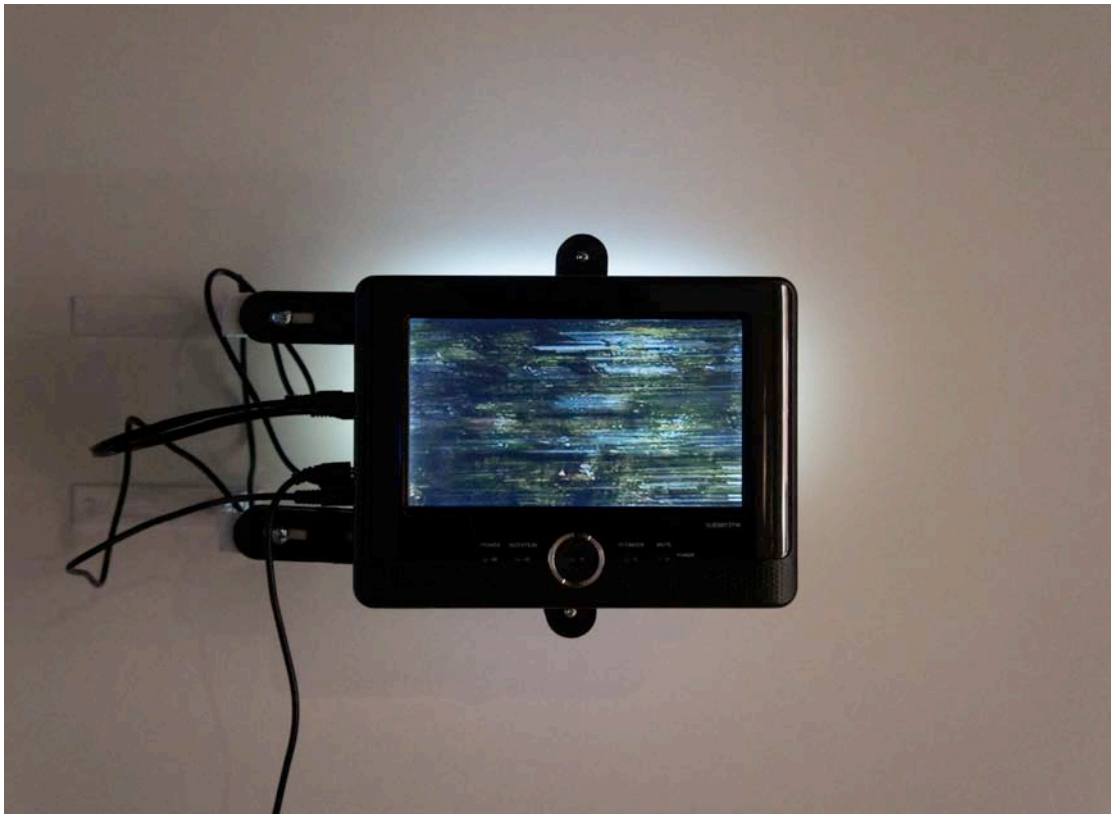


Figure 31: *Photic Drive* 2011 digital video, in-car DVD players, license plate mounts, brackets

3.3 *Apparatus and Objecthood*

The apparatus often functions as a blind spot in our engagement with media. As a result the image is generally presumed to be autonomous from the apparatus, its technical support, which is defined by Vilém Flusser in terms of its automation and impenetrability. The technical image is never autonomous from the apparatus, but requires a suspension of disbelief to be seen as such. By foregrounding the physical presence of the apparatus as an object, I attempt to undo the automatic and unconscious suspension that enables the mediating role of the apparatus to remain unnoticed.

The reliance on the apparatus therefore presents a potential paradox for Modernist film. This is highlighted in Rosalind Krauss' discussion of Structuralist Film. For Krauss, the impossibility of this autonomy is devolved into what she describes as:

> [T]he compound idea of the "apparatus" – the medium or support for the film being neither the celluloid strip of the images, nor the camera that filmed them, nor the projector that brings them to life in motion, nor the beam of light that relays them to the screen, nor that screen itself, but all of these taken together, including the audience's position caught between the source of the light behind it and the image projected before its eyes.[23]

In Krauss' assessment, Structuralist Film sought to 'sublate the internal differences within the filmic apparatus into a single, indivisible, experiential unit that would serve as an ontological metaphor […] for the essence of the whole.'[24] The structuralist project becomes, in Krauss' view, an attempt to utilise the compound *dispositif* (in Baudry's sense of the word) of the filmic apparatus to create an essentialised and autonomous (therefore modernist) experience of the medium. While the above passages specifically focus on film, elsewhere Krauss applies these observations to moving image media as a whole, which she figures as a 'heterogeneous apparatus'[25] comprising 'a *set* of physical mechanisms' rather than the singular 'object-state' of more traditional media such as painting or sculpture.[26] Krauss' reference to the unwieldy black and grey boxes of early video equipment reflects a common

presumption that persists in relation to technical images: that 'the object (the electronic equipment and its capabilities) has become merely an appurtenance.'[27] In this way, once again, the unseen apparatus of production is sublimated and the apparatus of presentation overlooked.

In my practice I utilise specific apparatuses as objects to emphasise how they mediate imagery. In the installation *Instamatic* 2004-11, digital photo frames and personal media players were used to present short moving snapshots that had been recorded using the 'video' function on rudimentary digital cameras.[28] There is a relationship here between the content of these videos, which exhibited quotidian moments of distraction, and the domestic nature of the screens. The heterogeneous combination of screens arranged on the wall emphasise their individual qualities. The screens are not mere appurtenances that frame the moving images, but specific objects that have a presence of their own.

Figure 32: *Instamatic* 2004-11 digital videos, digital photo frames, personal media players

My emphasis on the presence of the apparatus as an object in its own right constitutes what Michael Fried has referred to as 'theatricality'. In his 1967 essay "Art and Objecthood*",* he defines theatricality in terms of the artworks'

inclusion of 'the beholder,' and their resulting awareness of its objecthood.[29] For Fried, the awareness of the artwork as an object in real space is a 'special complicity' that undoes the suspension of disbelief that allows the viewer's absorption into pictorial space.[30] However, the apparatus creates something of a paradox for Fried's theatrical paradigm. In "Art and Objecthood" Fried makes passing reference to cinema, and more recently has extended his discussion to include contemporary photography. Fried's recent work concentrates on large-scale tableau photography, claiming that it excludes the viewer's presence from the image and is therefore anti-theatrical. This position is illuminated by its relation to Stanley Cavell's thoughts on the cinema screen: 'A screen is a barrier. What does the silver screen screen? It screens me from the world it holds – that is, makes me invisible. And it screens the world from me – that is, screens its existence from me.'[31] The cinema positions the viewer both in front of and behind the screen, a viewing position that is also central to Fried's conception of photography. The screen therefore places the viewer at a distance from the world, while also making cinema a refuge from the world of theatre.

Figure 33: *Silver Screen* 2012 digital video, cellophane

In works such as my *Silverscreen* series (2011) (fig.33), this distance is collapsed because the work emphasises the objecthood of the screen. This is in contrast to Fried's assertion in "Art and Objecthood" that 'the [cinema] screen is not experienced as a kind of object existing, so to speak, in a specific physical relation to us.'[32] The screens present videos of fragments and details recorded from television and news broadcasts. The monitors on which they are screened are wrapped in a particular type of metallic cellophane wrapping paper that allows light to penetrate while also reflecting the viewer and their surrounding environment. In this way it disturbs the transparency of the screen, which instead becomes an interface between the video being screened and its environment 'including the beholder' (to use Fried's dramatic terminology). The foiled screen 'confronts' the viewer and complicates the act of viewing, for it is 'placed not just in his space but in his way.'[33] In doing so, it highlights the objecthood, and the mediating presence, of the apparatus.

3.4 *Face-to-Face with the Apparatus*

Vilém Flusser's philosophy of technical images suggests that in using apparatuses we become functionaries of their program in what he terms an 'apparatus-operator complex.' This strategy seeks to explore the 'apparatus-*audience* complex' by physically bringing the viewer face-to-face with the apparatus through the creation of customised viewing devices.

The viewing devices that I make play with and interrogate the spectator's apparatus of vision. They are informed by the history of stereoscopy, while also referring to the recent popular resurgence of 3D cinema. While not a physically immersive experience, they create a sense of optical immersion, as the image fills the field of vision. The devices are objects that the spectator interacts with in the process of viewing; this bodily engagement facilitates the viewer's absorption into the 'apparatus-audience complex'.

The Stereoscope emerged from Charles Wheatstone's research into binocular vision and depth perception in 1838. It therefore predates Daguerre's

announcement of photography by a year, although the histories of the two are often conflated. Aside from its initial use for viewing drawings rather than photographs, Jonathon Crary argues that the actual design of Wheatstone's stereoscope is distinct from later variants in that its use of mirrors to redirect the gaze emphasised 'the disjunction between experience and its cause' and thereby 'left the hallucinatory and fabricated nature of the experience undisguised.'[34] The resulting apparatus-audience complex therefore created an awareness that 'the illusion of depth was thus a subjective event and the observer coupled with the apparatus was the agent of synthesis or fusion.'[35]

With the incorporation of photographic images, the stereoscope promised to bring the world to its spectators, and to provide a three-dimensional experience of 'being there'. Mary Warner Marien has gone so far to suggest that the hunger for stereoscopic experience, and its 'pleasing combination of education and entertainment,' helped establish photography itself as an industry.[36] Her characterisation of stereography as an early form of infotainment is supported by the 1859 press, which praised the device for 'enlightening the masses so as to elevate and amend them.'[37] Such edifying flights of fancy are also captured in Oliver Wendell Holmes' writings on the stereoscope. Having designed what became the most common form of the stereoscopic viewer in 1861, Holmes' writings can be similarly likened to nineteenth-century infomercials, narrating global travelogues conducted via the stereoscopic viewer.

In addition to extolling the virtues of the televisual,[38] Holmes also provides a curiously embodied account of its experience, in which 'the mind feels its way into the very depths of the picture.'[39] Beyond the light-writing and sun-painting of photography, Holmes characterised the stereoscope as a form of 'sun-sculpture' that had a 'half-magnetic effect' akin to hypnosis.[40] He wrote:

> [T]he shutting out of surrounding objects, and the concentration of the whole attention, which is a consequence of this, produce a dream-like exaltation of the faculties, a kind of clairvoyance, in which we seem to leave the body behind us and sail away into one strange scene after another, like disembodied spirits.[41]

So, while photography can be thought of as 'mirror with a memory'[42] that captures a spectral emanation from the referent,[43] in the experience offered by the Stereoscope it is the viewer who is rendered spectral and disembodied.[44]

My work *Make my day (bubblevision)* (2012) (fig. 34-35) is a stereoscopic video and viewer that presents a pixelated stream of bubbles that appear to be blown from between the spectator's eyes. The title of the video, *Make my day,* along with the use of a toy "bubble gun," references the slogan made famous by Clint Eastwood's character 'Dirty Harry' Callaghan. In place of the violent cynicism of the archetypal cop, however, this video presents a spectacle of festive diversion, playfully held aloft for the spectator by helium balloons. The bi-line *bubblevision,* denotes the physical viewing apparatus, and is reminiscent of cinematic attempts (often of the B-grade variety) to engage audiences by expanding beyond the conventional screen; not only through three-dimensionality, but also by cinematic experiments branded with appellations such as Illusion-O, Emergo, Sensurround, Smell-O-Vision, and Cinerama.[45]

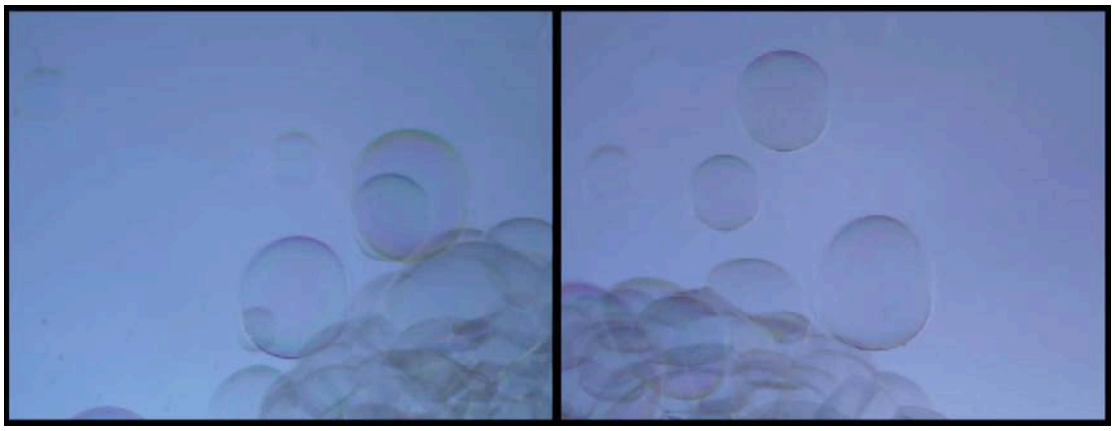


Figure 34: *Make My Day* 2011 still from a digital video

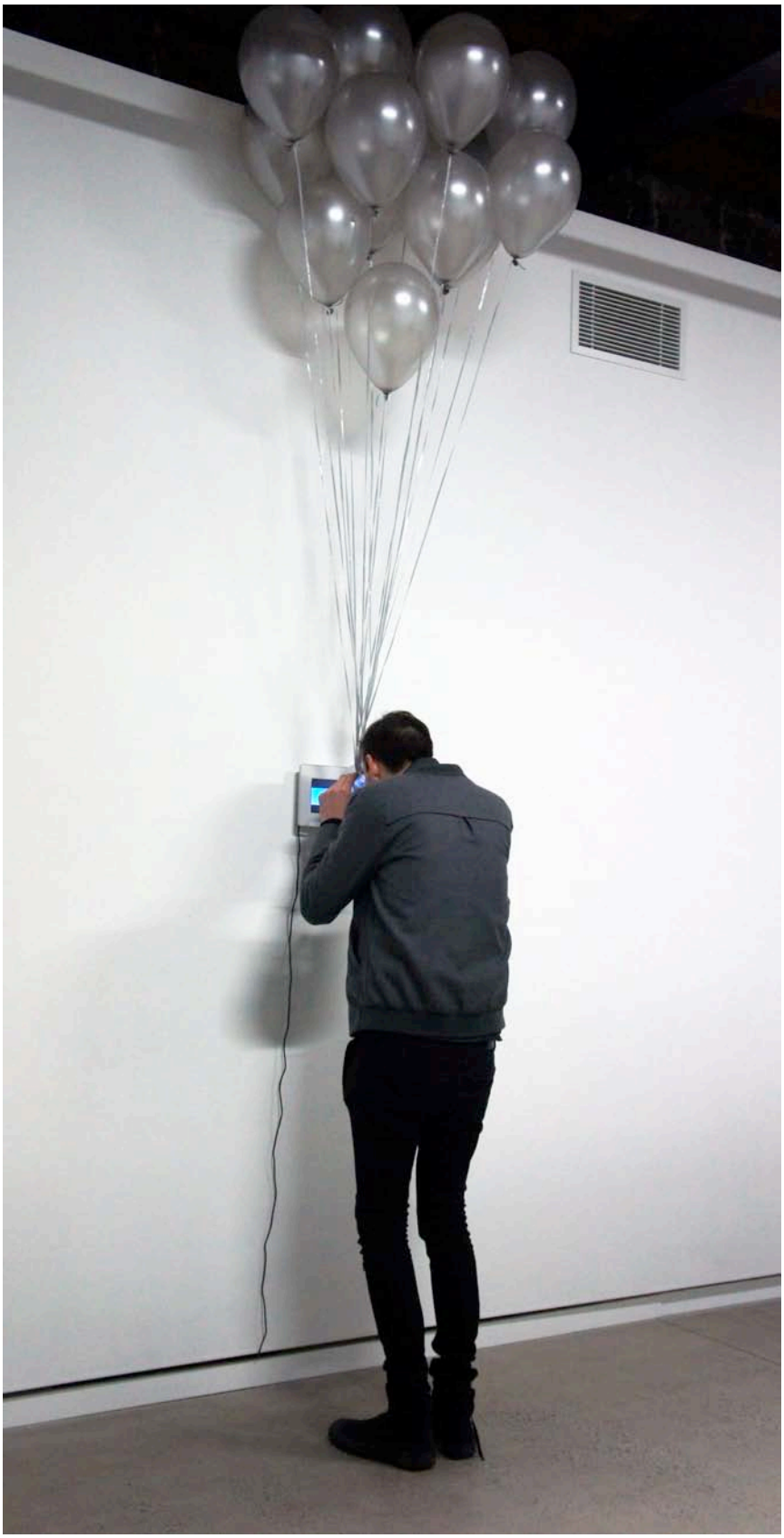


Figure 35: *Make My Day (bubblevision)* 2011 digital video, digital photo frame, magnifying lenses, plastic, helium balloons

The video imagery that features in this work however, like many of my moving image works, is closer to the Lumiere Brothers' early block-busters, which they referred to as 'actualities.' This genre of film-making consisted of 'slice of life' vignettes depicting ordinary occurrences from daily life, documented with varying degrees of staging.[46] The actualities therefore belong to the period known as 'the Cinema of Attractions,' when the cinematic apparatus was novel enough to be considered an attraction in its own right. The everyday and playful content of the 'actualities' presented in my videos is reinforced by the related ordinariness of the materials used to construct the viewing devices. In both content and method they therefore shadow and subvert the spectacular CGI simulations of today's mainstream Hollywood 3D cinema.[47]

Some commentators have suggested that the resurgence of digital 3D cinema is driven by 'a fundamental cinematic desire to eliminate the last vestige of the apparatus from the field of representation, the film screen.'[48] In contrast to this, I seek to emphasise the experience of viewing by employing devices that are cumbersome in comparison to the unobtrusive sunglasses of digital 3D.[49] Resembling instead the bulky contraptions of virtual reality that not long ago seemed to be the way of the future, they are objects in Vilém Flusser's definition of the term: 'a thing standing in our way.'[50]

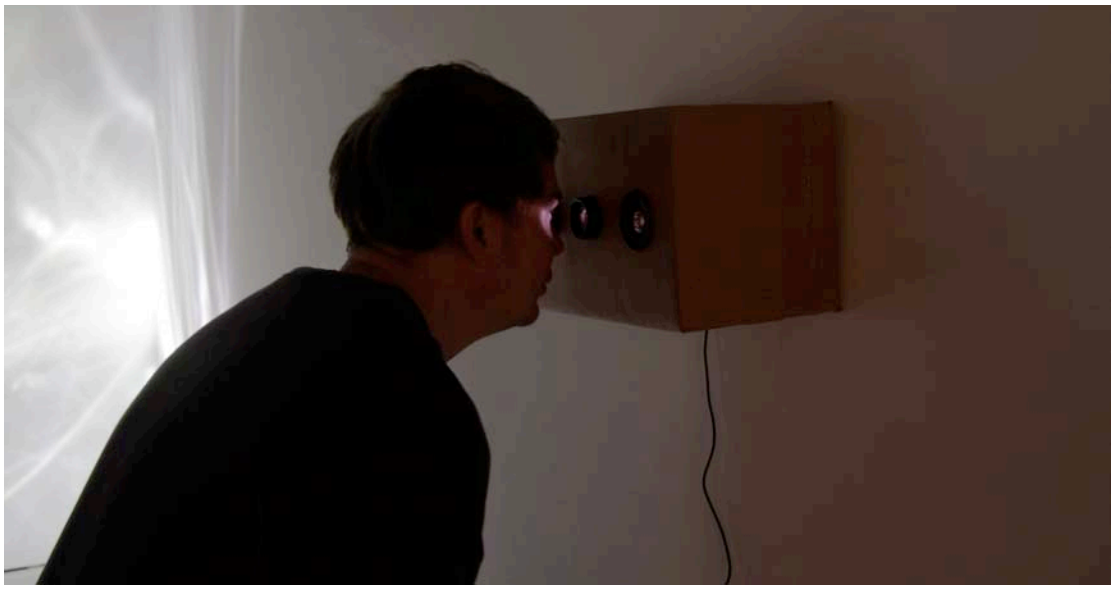


Figure 36: *Stereostereoscope* 2011 digital video, digital photo frame, cardboard, lenses, speakers

The overt presence of the viewing devices also subverts the sense of 'impossible presence' that is shared by early stereographic experience and more recent 'serious' 3D cinema, such as recent films by Werner Herzog and Wim Wenders.[51] In my viewing devices, 'instrumental artefacts' such as the matrix of the screen and its visible pixels are foregrounded as perceptual imperfections. The work does not attempt to create a perfect illusion of presence, of 'being there' inside the image, but rather plays with the optical mechanics of this illusion. Instead, the sense of presence emphasised in the work is the encounter between spectator and apparatus, brought face-to-face.

3.5 *Inside the Apparatus*

This practice strategy highlights the presence of the apparatus by surrounding or immersing the spectator in its artefacts. It therefore presents the apparatus as a spatialised configuration that responds to or assimilates the pre-existing architecture of the gallery.

In the installation *Light Props* (2012) (fig. 37-38), this sense of spatialisation is achieved by reflecting and refracting a projected video around the gallery space. The title of this work makes a number of references, firstly to the reflective foil and perspex objects, mirrors and lenses that are propped in the path of the projected image. It also refers to the source of the footage, which records fragments of the glittering billboards that populate London's West End. In addition, the title makes reference to Laszlo Moholy-Nagy's *Light Prop for an Electric Stage* 1922-30, an iconic kinetic object that was made to cast reflections and shadows around a room.[52] This work exemplifies the dialectical viewing experience that emerges when the spectator's attention oscillates between the apparatus and its effects.

Figure 37: *Light Props* 2012 digital video projection, cellophane, fresnel lenses, mirrors, perspex, miniature tripods

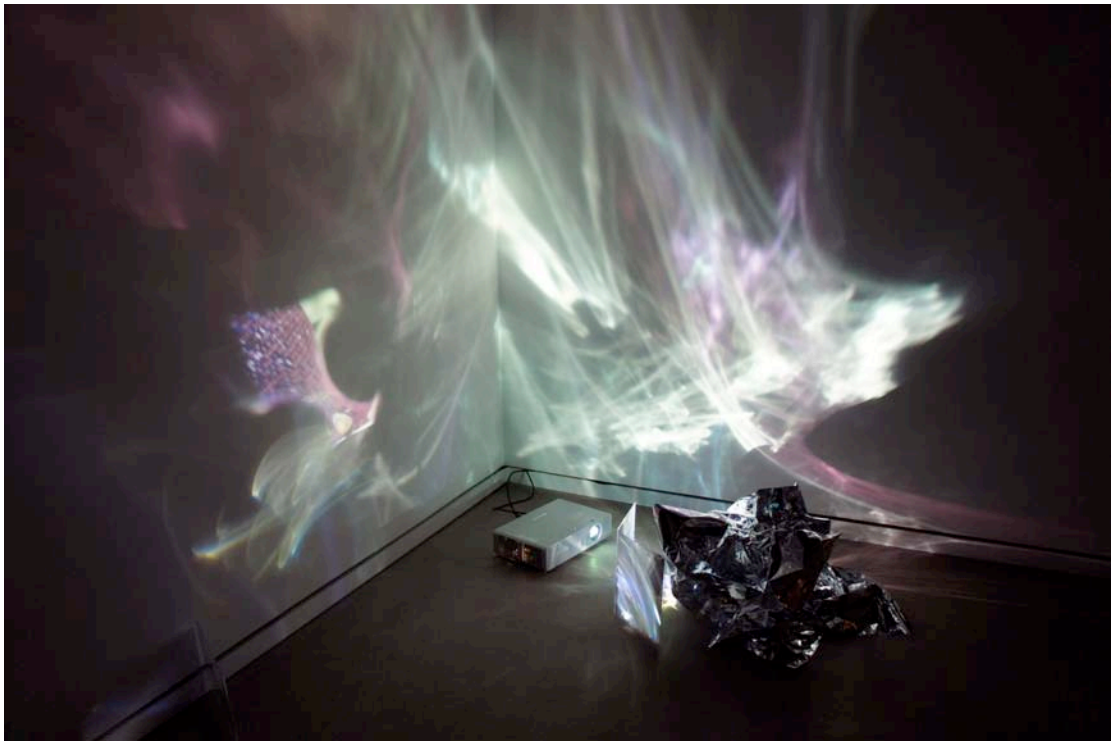


Figure 38: *Light Props* 2012 detail

My work plays upon a double meaning in Moholoy-Nagy's title, between a play of light and a theatrical play upon an 'electric stage' where the object becomes a mere 'prop'. In this regard, it operates in line with Moholy-Nagy's call for a new theatre that drew on 'complex APPARATUS […] and other machines, as well as optical instruments, reflecting equipment' to eliminate the isolation of the stage and 'fuse' the spectators 'with the action on the stage at the peak of cathartic ecstasy.'[53] My own *Light Props* displays a more ambiguous relationship to the theatre, recording the momentary diversion of theatre advertisements from billboards. The installation does, however, make the spectator part of the spectacle by incorporating them into the effects of the apparatus. Like Moholy-Nagy's original work, my *dispositif* is a device that interacts with light in order to project reflections and shadows around the gallery space, surrounding and immersing the viewer.

I employ a site-responsive spatial apparatus in my series of immersive interventions entitled *Light Space Movement* (fig. 39). In these installations, rolls of coloured cellophane are wrapped around architectural features and suspended across spaces to create room-sized light filters. In filtering and reflecting coloured light throughout the gallery, the cellophane not only transforms the spectators' experience of the space but literalises it as a photological apparatus. The viewer is situated within this apparatus and immersed in its coloured light. The work illustrated here featured magenta and cyan, two of the primary subtractive colours that are fundamental to colour photography. The ephemeral intervention created a surface that moved in response to air currents generated by gallery air-conditioning and audience movements, and which shifted in intensity throughout the day.

The title of this series of installations lists the components of the piece (light, space and movement), but also echoes the title of California's Light and Space movement. In the 1960s, members such as Robert Irwin, Doug Wheeler and James Turrell employed similar strategies to explore viewers' phenomenal and spatial experience. In advance of Olafur Eliasson's oft-repeated credo of 'seeing yourself seeing,' Turrell and Irwin wrote of 'allowing people to perceive their perceptions' and making spectators 'conscious of their consciousness.'[54] In contrast to Eliasson's avowed exposure of the

apparatuses underlying his works, Light and Space artists sought to create dematerialised experiences in which 'the experience is the "thing"' and 'experiencing is the "object."'[55] In sublimating the apparatus behind the effect, their works constitute a highly minimal phantasmagoria, defined in Theodor Adorno's terms as a spectacle that conceals the means of its own production.[56]

For Jonathon Crary, this concealment leaves the viewer in an uncertain position. He writes that Irwin's translucent scrims, which divide the gallery, transform spectators into 'dimly seen or sensed figures in varying degrees of obscurity, lacking any specific identity so that they can easily, if temporarily, become phantasms within the terrain of our own psychic and perceptual economy.'[57] Echoing the spectral spectatorship of the stereoscope described by Holmes, in Crary's account Irwin's work transforms its audience, along with the space itself, into an ineffable presence.

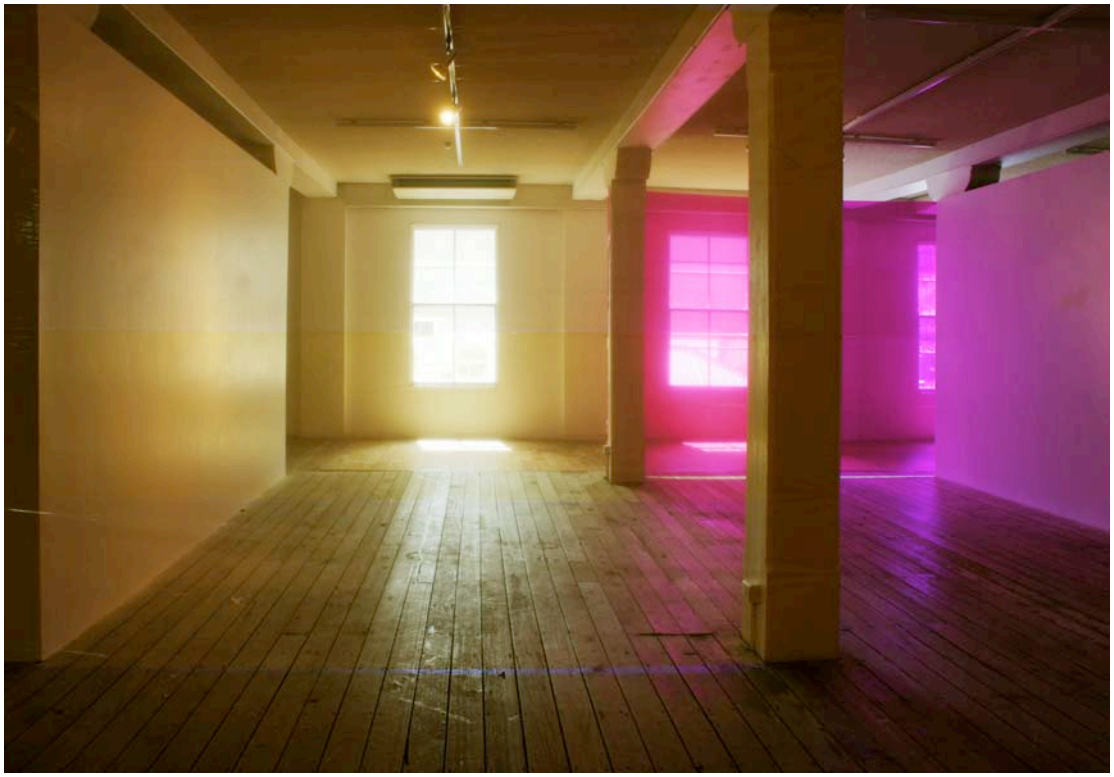


Figure 39: *light space movement (magenta-yellow mix)* 2012 cellophane, adhesive tape

In the case of my own *Light Space Movement* installations, the material is present and grounded in the quotidian. The cellophane forms both a filter and a screen. To echo Cavell's description of the cinema screen, it serves to both screen the view of the space and to screen it out. It is, however, translucent rather than transparent, and therefore transforms the spectator's experience of the space. The material becomes part of a spatial apparatus that the spectator occupies. This is therefore a strategy that is extended into the apparatus of the exhibition, in the major creative outcome of the research, the exhibition *Complex Experience.*

3.6 Exhibition: *Complex Experience*

The exhibition *Complex Experience* 2013 brought together the strategies discussed above to create a multi-faceted experience of the apparatus. The exhibition functioned as a complex of metaphorical and physical 'black boxes within black boxes'[58] that occupied the darkened gallery space. The installation played with qualities of the space itself, which combines characteristics of the traditional white cube of the art gallery and the black box of theatre. The screens and projections that made up the works provided the principle source of light. Each element of the exhibition offered distinct forms of engagement, including perceptual play, optical immersion and physical interaction. Together, these works considered the complex experiences generated between the spectator and the artist-made apparatus.

Entering the Apparatus: *Splitscreen Obscura* 2013 and *Requisite Sound* 2012

The work *Splitscreen Obscura* (fig. 40-41) transformed the front third of the gallery space into an immersive camera obscura of cinematic proportions, so that upon entering the exhibition space the audience found themselves inside the apparatus. The camera obscura embodies the 'black box' apparatus at its most fundamental, for it consists of a darkened space into which any aperture of the right size will project an image of the outside world. It is also an

important apparatus that has informed our understanding of perception, helped to shape the development of photography, and acted as a model for conceiving of the perceiving subject in the work of diverse thinkers including Descartes, Locke, Freud and Marx.[59]

My camera obscura positions the viewer inside the apparatus. In its immersive form, it arguably presents the mediated image at its most transparent because the hole that serves to focus the light rays is clearly visible and allows the audience to see the sky outside. In *Splitscreen Obscura,* this lensless aperture was formed by a mass-produced light shade (appropriately enough, from IKEA's *foto* range), thereby accentuating its objecthood. The soft grain of the image was also highly visible, and viewers could observe their own interference with the image as they moved through the space. Rather than diagrammatically representing a metaphysics of interiority, the camera obscura *as experienced* foregrounds the operations of the audience's own perceptual apparatus. When entering the darkened space from the daylight outside, the audience required time for their eyes to adjust, creating the impression of the image emerging from the screen.[60] Like the light effects of Light and Space artists Robert Irwin and James Turrell, this process of adjustment foregrounded the workings of the spectators' own perception.

By splitting the projected image across two screens this work also played against the traditional cinematic *dispositif* of the classical camera obscura, which is strongly related to the philosophical tradition of Plato's Cave. While presenting a monocular projection, the two screens extended the image. This created a space for the spectator to traverse, thus activating the immobilised spectator of cinema. In prefiguring the doubling effect of other works, as well as in allowing the audience's eyes to adjust to the low light levels, this work also served as preparation for viewing the exhibition.

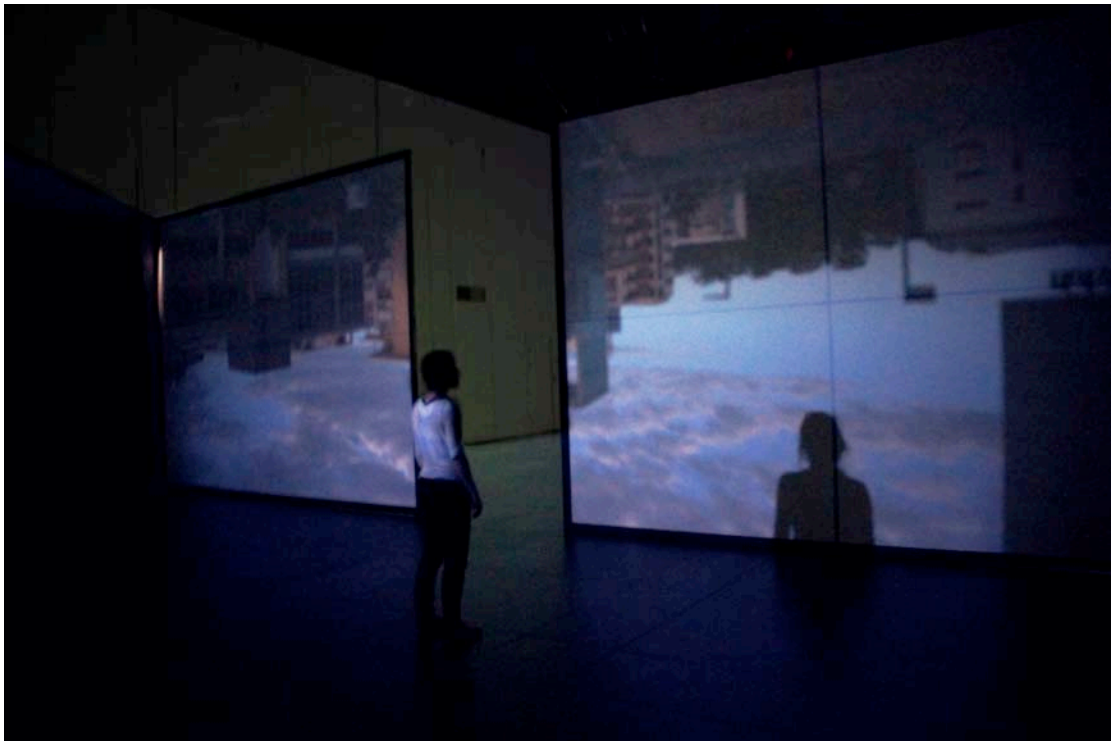


Figure 40: *Splitscreen Obscura* 2013 camera obscura projection, light shade, screens

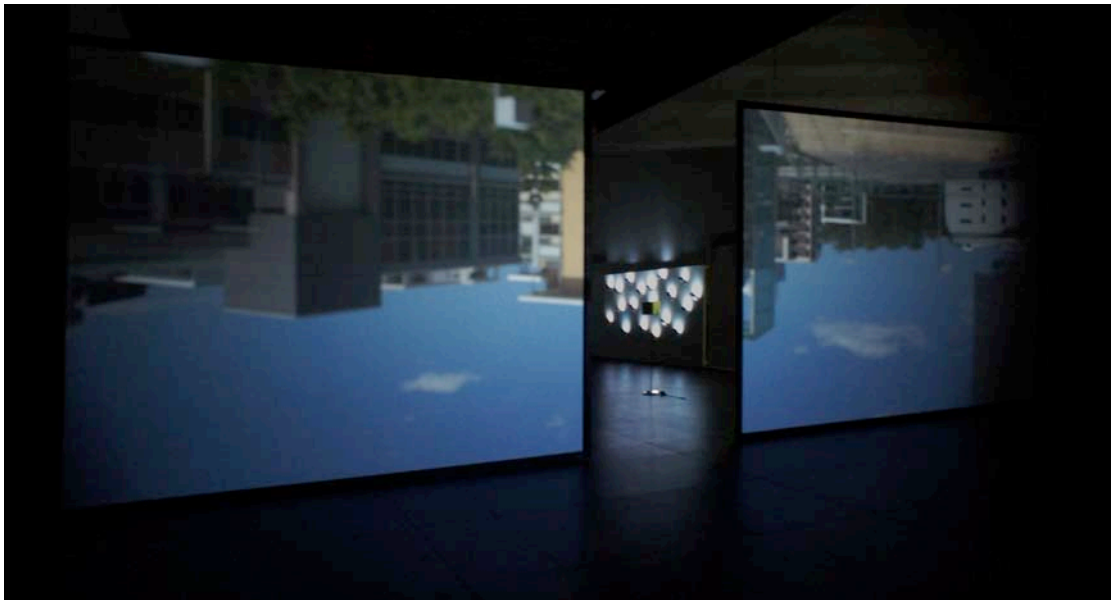


Figure 41: *Splitscreen Obscura* 2013 installation view

A sound work entitled *Requisite Sound* was audible throughout the gallery and assisted in positioning the spectator 'inside the apparatus.' The title of the work refers to the original German title of Laszlo Moholy-Nagy's *Lichtrequisit einer elektrischen Buhne (Light-Prop for an Electric Stage)* 1922-30, which served as the source material for the sound. The sound component was isolated from amateur online videos of the *Light Prop* replicas, edited, and then layered to produce a four-channel soundscape that filled the gallery. These mechanical and industrial sounds are an inherent but rarely acknowledged element of this iconic apparatus, and help to shape the spectator's experience of it. In keeping with the contingent nature of the *Light Prop,* here the sound takes centre stage and becomes distinctly separated from the *facture* and physicality of the apparatus itself.

Adaptations: *Stereostereoscope* 2012 and *Slideshow* 2012-3

In the second part of the gallery, a series of stereoscopic video viewing devices brought the audience face-to-face with the 'apparatus'. These works required the audience to adopt a specific stance or physical position in relation to the apparatus. The interactions between viewer and object played with notions of intimacy and immersion.

To produce the work *Stereostereoscope* (fig. 42), lenses were removed from a pair of digital cameras and replaced with earphone components. These acted as multi-pinhole lenses and dissembled the resulting videos into shifting points of light that resembled enlarged pixels. In other words, the pinholes created an analogue optical effect that mimicked a digital one. This was further mapped onto the twin matrices of the digital camera used to record the video and the screen on which it was presented, amplifying these instrumental artefacts. In this way, these interventions 'played against the apparatus' to abstract the imagery and to highlight the materiality of the technology itself.

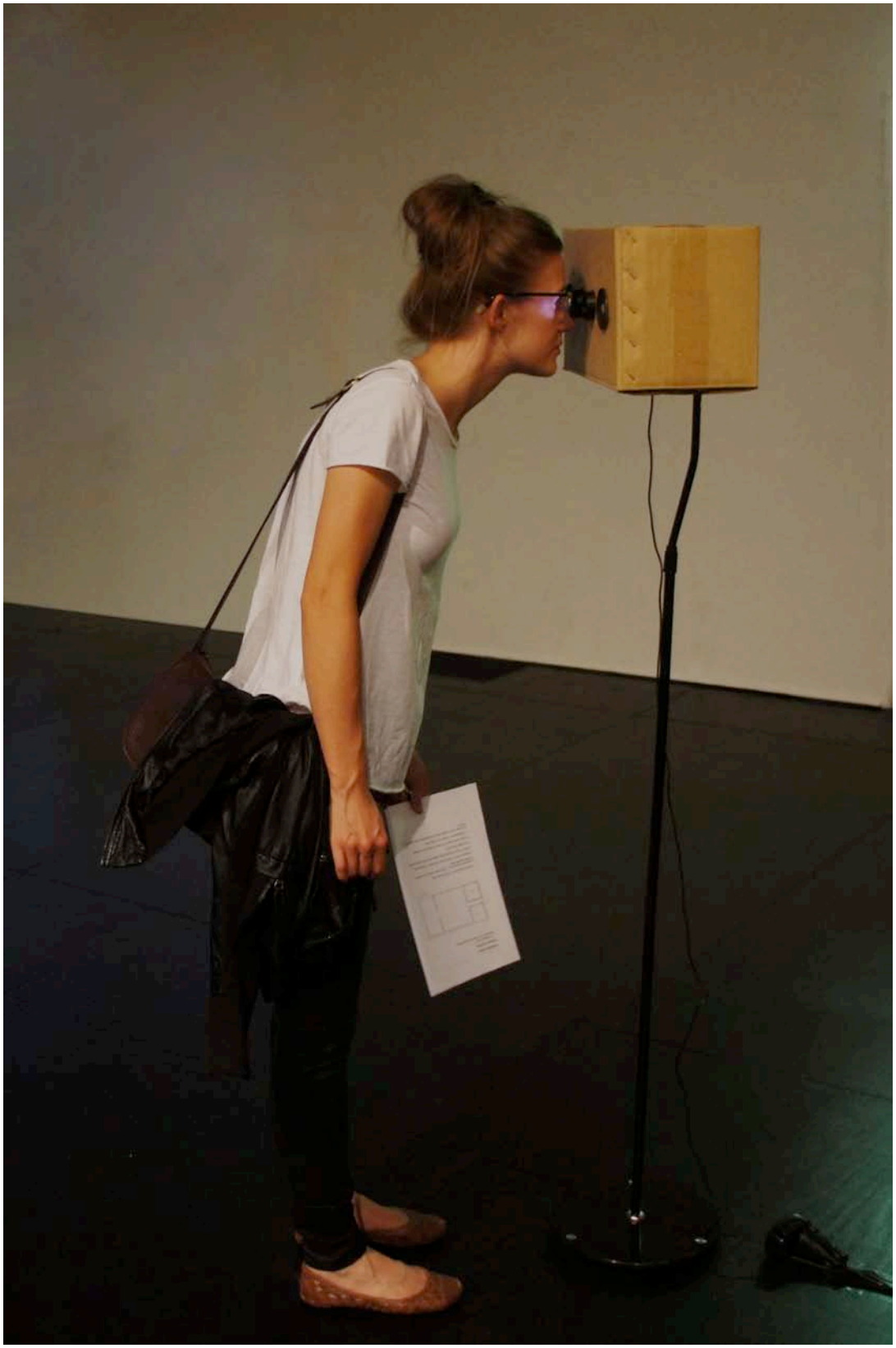


Figure 42: *Stereostereoscope* 2011-13 digital video, digital photo frame, cardboard box, lenses, speakers, modified speaker stand

The viewing apparatus emphasised the physical experience of spectatorship in a number of ways. In the case of *Stereostereoscope*, this was a cardboard box into which lenses and speakers had been inserted, a design that recalled my adolescent memories of similar boxes converted into d.i.y. speaker cabinets. The improvised speakers mirrored the makeshift camera lens and, mounted close to the spectator's ears, presented ambient sound as the only clue to the location of the recording. The title played upon the doubling that is implied by 'stereo' in relation to both sound and vision, and denoted an oscillation between the two.

In response to the particularities of the space, the stereoscopic works presented in this exhibition were adapted from earlier wall-based versions. The scale of these floor-based versions mirrored the body of the spectator, who had to adapt their own movements to experience the work. In this, they relate to my earlier discussion of Michael Fried's concept of theatricality; in particular, his characterisation of minimalist sculpture as anthropomorphic.[61] This quality was reinforced by the lenses, which to a certain extent mirrored the eyes of the spectator and suggested the form of a face on the surface of the apparatus. When documenting the exhibition, this incidental resemblance even momentarily fooled the camera's automatic face-recognition algorithm.

While *Stereostereoscope* played against the apparatus of the camera to abstract imagery, *slideshow* (fig. 43) instead drew on existing video footage that had been uploaded to YouTube by waterslide enthusiasts. The impulse to share these experiences via video is translated into the experience of putting one's head in a PVC pipe periscope. The videos were screened using a portable media player, mounted with 'slide viewers' made for viewing photographic transparencies. Rather than creating a stereoscopic illusion of depth, the left and right views mirrored one another to disorientating effect. In contrast to the industrial stainless steel finish of Carsten Höller's slides, many of the water slides featured optical patterns, psychedelic designs and changing lights.[62] These qualities were enhanced by the stereoscopic mirroring, recalling the opticality of Marcel Duchamp's *Precision Optics* (1920-35).[63] The relative symmetry of the left and right views moved in and out of synchronisation, heightening this optical play.

Figure 43: *slideshow* 2012-13 digital video, media player, slide viewers, plastic, paint

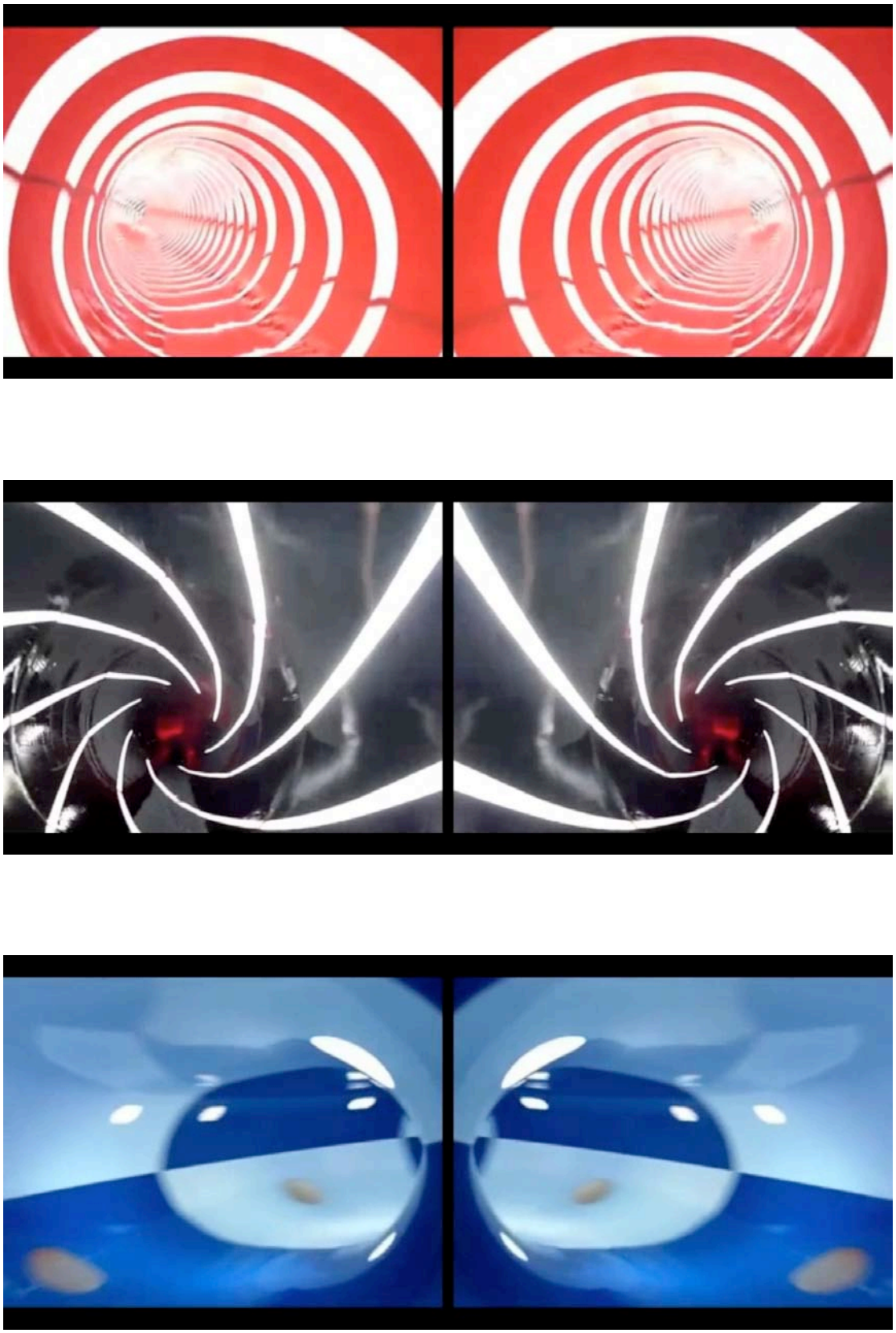


Figure 44: *slideshow* 2012-13 stills from digital video

Bringing to light: *Flickr Films* 2012-13

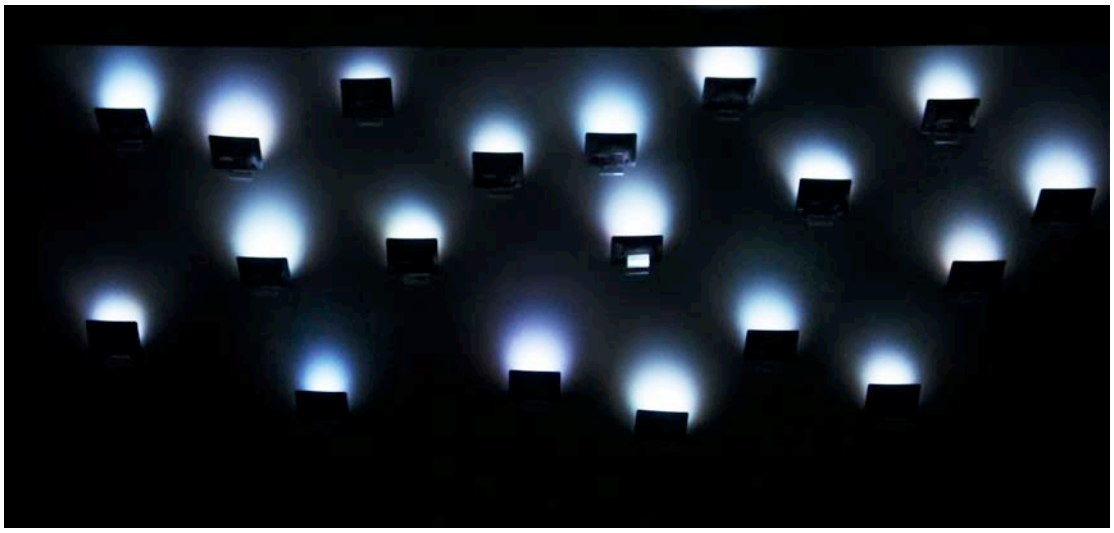


Figure 45: *Flickr Films* 2012-13 digital videos, digital photo frames, perspex photo frames

Figure 46: *Flickr Films* 2012-13 detail

The wall-based work *Flickr Films* (fig. 45-46) sought to emphasise the materiality and objecthood of the screen through an all-over composition consisting of digital photo frames. These screens were used to present rapid-fire slideshows, each featuring thousands of images compiled from the photo-sharing website Flickr. The images were amassed over a period of 12 months, and the number of images on each screen varied between 2,000 and 6,000 images. These figures reflect the average number of images uploaded to Flickr per minute. The work rendered this overwhelming output of digital photography as perceptual affect.

The rapid montage of these found-image slideshows also reinterpreted the experimental tradition of Flicker Films. The speed with which the images changed conforms to the 8-12 herz rate prescribed for maximum physical response, but the placement of the screens at an angle to the wall obscured the images. This placed an emphasis on the resultant play of light that was cast upwards. This enabled multiple layers of experience as one moved in various ways to view the components in the work. From a distance the effect was mesmerising, while at closer proximity the screens filled the field of vision and their flickering became optically overpowering. The vantage point directly in front of the screens offered a peripheral view of the individual images.

Tuning in to the Apparatus: *Dreamachine (lite)* 2012 and *Dream portraits* 2013

The Flicker effect also played an important role in the installation of three works that replayed the Dreamachine. The first of these, *Dreamachine (lite)* (fig. 47) was my hand-made transparent version of Brion Gysin's 'apparatus to be viewed with closed eyes.' The transparency of the object in this case made the apparatus dysfunctional by removing it from its original use, and making it an object to be looked at.

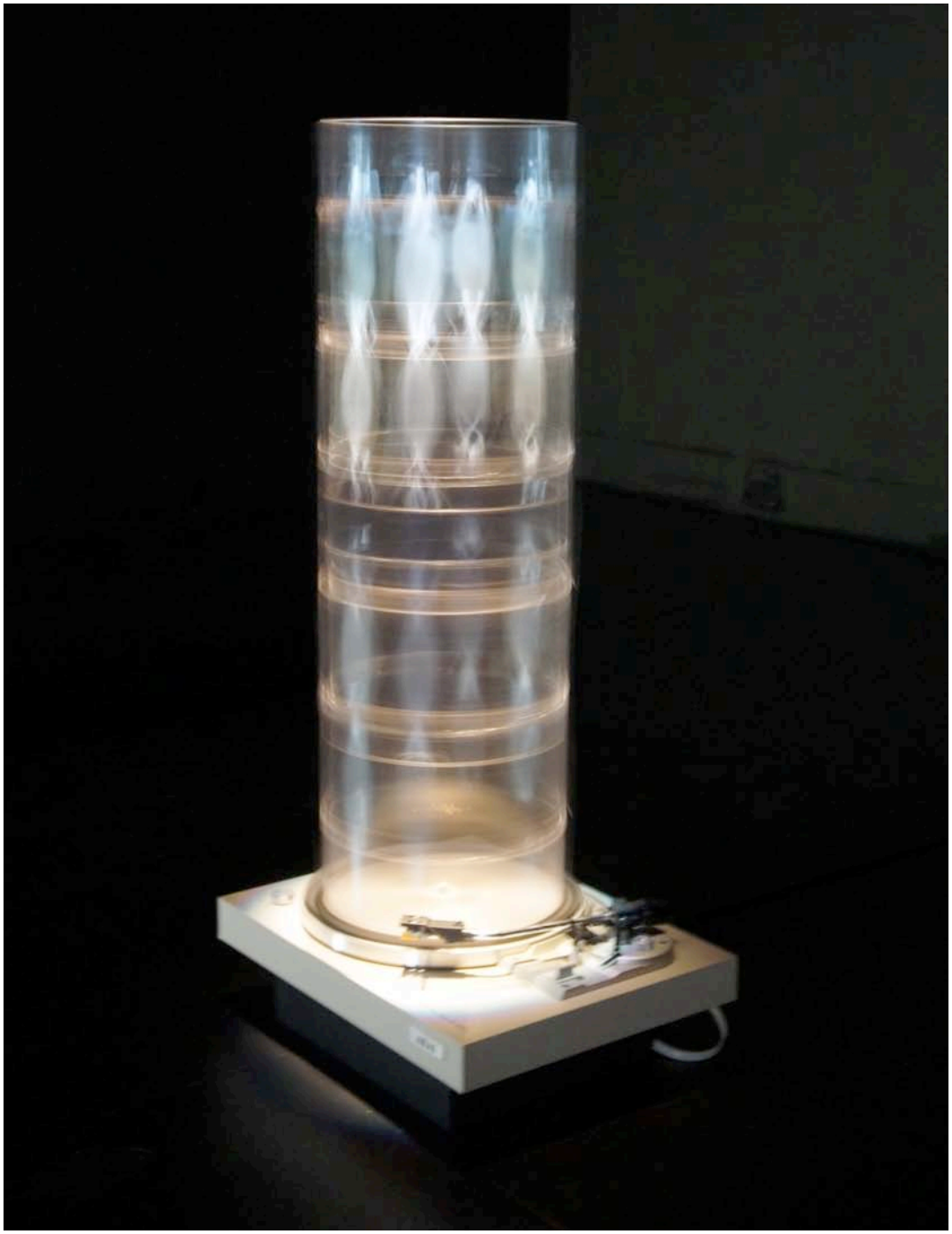


Figure 47: *Dreamachine (lite)* 2012 handcut polycarbonate, record player

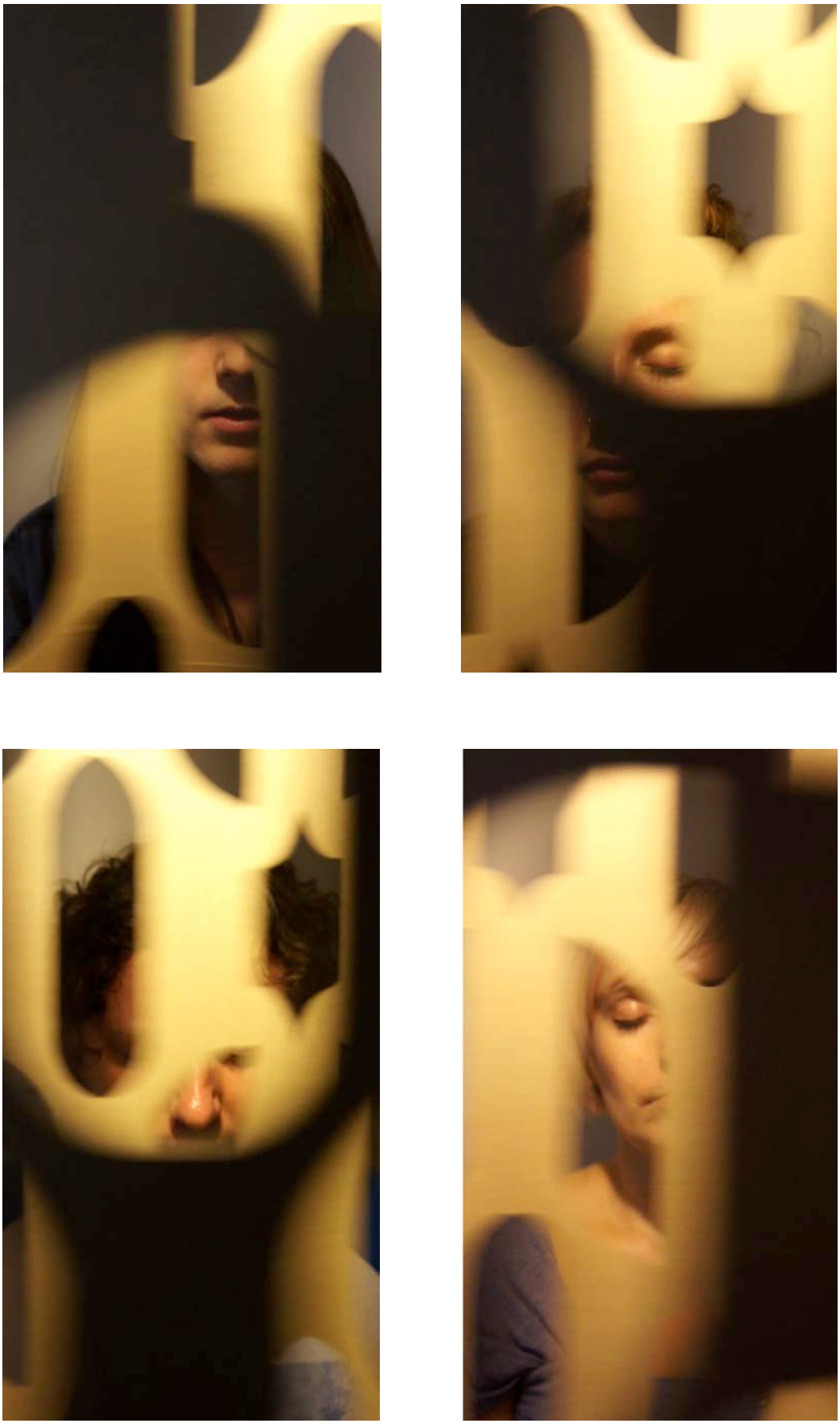


Figure 48: *Dreamachine Portraits* (2013) stills from digital videos

Reflected in the spinning surface of *Dreamachine (lite)* were two monitors, screening videos from the series *Dreamachine Portraits* (fig. 48). This series of videos documented the faces of people using a cardboard version of the Dreamachine. Fragments of the subjects' features could be perceived between the voids and spaces that also projected the flickering light onto their closed eyes. Placed on the floor at the same height as the actual object and casting their flickering light into the space, the videos functioned as both documentation of and surrogates for the Dreamachine.[64] The screens combined with the object to suggest a social space that emphasised the technological mediation of the Dreamachine's meditative affect.

Open Circuits: *Survey* 2013

Survey (fig. 49-50) comprised an arrangement of 'dummy' surveillance cameras and miniature projectors installed in a darkened space. A sensor light sporadically sparked the dummy cameras into motion, scanning the projected images across the walls. These projections presented actual surveillance images from motion-activated cameras. Edited together in sequence, they formed automatically generated stop-motion animations of ordinary events within domestic spaces. These images were triggered by activities such as courier deliveries, the comings and goings of cleaning staff, and even spiders spinning their webs in front of the cameras.

These images were automatically uploaded from domestic security cameras to image sharing websites. This system was designed as a means of allowing its users global access to their private surveillance. However, the automation of this process inadvertently makes these images openly accessible. My use of these images in turn highlighted fault lines between public and private space, mobility and security, access and control, which were provoked by these networked apparatuses.

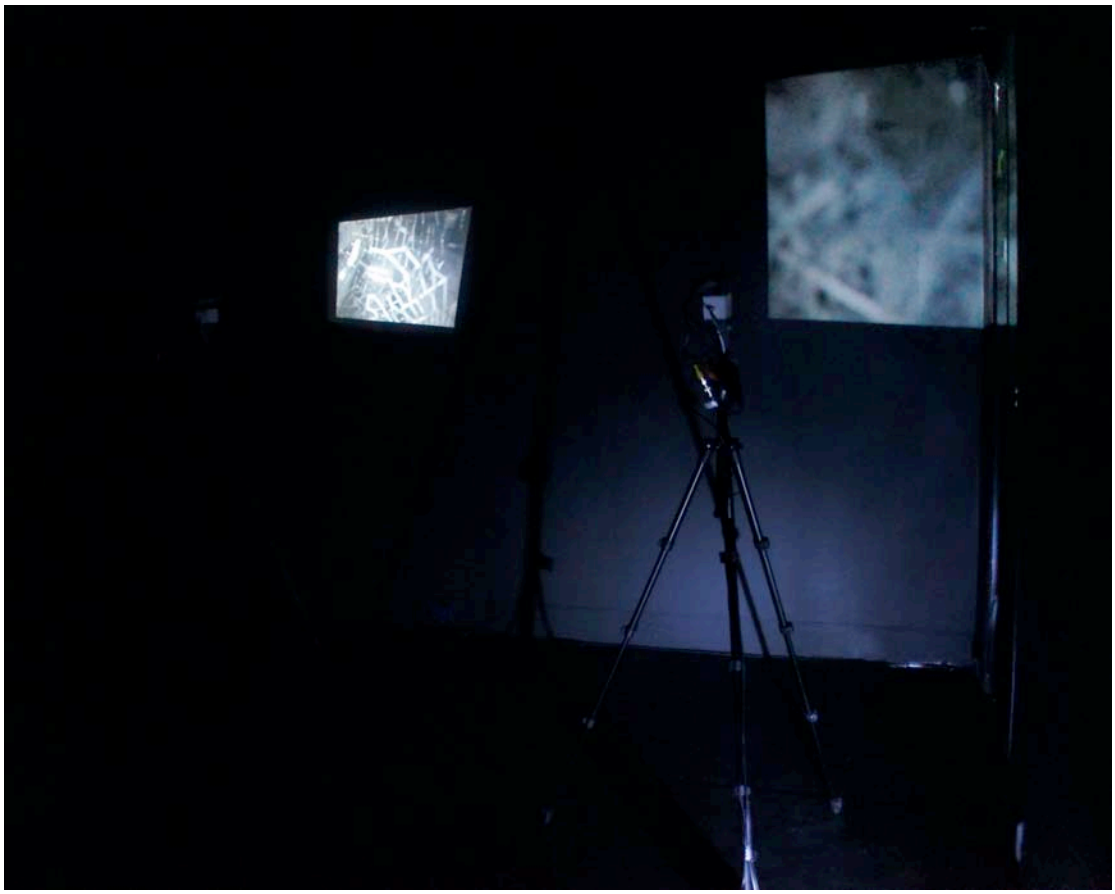


Figure 49: *Survey* 2012-13 installation detail; digital videos, tripods, dummy security cameras, pocket projectors

Figure 50: *Survey* 2012-13 stills from a digital video

The work subversively played against this surveillance apparatus by presenting a ramshackle *dispositif* that testifies to our misplaced faith in automation. The dispersed arrangement of tripods, cameras and projectors created a space that the spectator had to navigate in order to experience the work. This unseeing Panopticon implicated the spectator in the operation of a small-scale surveillance complex; a black box within a complex of black boxes.[65]

Conclusion

The exhibition *Complex Experience* sought to bring together diverse experiences of the apparatus-audience complex that I have developed during my practice-led research. These ranged from the pseudo-immersive micro-worlds of the stereoscopic viewer, to immersive spatial apparatuses that surrounded the spectator. In the exhibition various apparatuses created a complex of experiences, a series of black boxes within a black box, that in turn suggested connections to broader apparatuses beyond the gallery space. The works in the exhibition also offered models of the artist-made apparatus, and considered the complexities of this relation. By foregrounding the varied experiences of the apparatus-audience complex, my works have shed light on the particular mode of spectatorship that is created by the inter-relationship between apparatus and experience.

1 Flusser, V. 2000. *Towards a Philosophy of Photography*, translated by A. Mathews. London: Reaktion. 27.

2 Instrumental Artefacts are distortions, such as halos, shadows or dust particles. See Ihde, D. 1997. "The Structure of Technology Knowledge." *International Journal of Technology and Design Education* 7 (1):73-79.

3 Obrist, H.-U. 2001. "In Conversation with Pipilotti Rist." In *Pipilotti Rist*, 6-31. New York: Phaidon.

4 Crary, J. 2002. "Perceptual Modulations: Reinventing the Spectator." In *Outer & Inner Space: Pipilotti Rist, Shirin Neshat, Jane & Louise Wilson, and the history of video art*, edited by J. B. Ravenal, 22-27. Richmond: University of Washington Press. 24.

5 Flusser, op. cit.

6 Krauss, R. E. 1999. *A Voyage on the North Sea: Art in the Age of the Post-Medium Condition*. London: Thames & Hudson. 42. See also: Gunning, T. 2003. "Re-Newing Old Technologies: Astonishment, Second Nature and the Uncanny in Technology from the Previous Turn-of-the-Century." In *Rethinking Media Change: An Aesthetics of Transition*, edited by H. Jenkins, 39-60. Cambridge: MIT Press.

7 Krauss, op. cit. 42.

8 For more on the relationship between Agamben's thought, the Apparatus in Flusser and the Dispositif in Foucault, see Chapter 1.

9 Agamben, G. 2009. *What is an Apparatus?* Translated by D. Kishik and S. Pedatella. Stanford: Stanford University Press. 21.

10 Agamben, G. 2007. *Profanations*. New York: Zone Books. 84.

11 Ibid. 92.

12 Ibid. 75.

13 Ibid. 86.

14 Flusser, op. cit. 82.

15 Gysin, B. 1992. *Dreamachine Plans.* London: Temple Press. At different periods, Gysin's device was referred to as either Dreamachine or Dream Machine – my use of the former is based on its appearance in the printed plans to which I am referring here.

16 A similar effect is experienced in Carsten Höller's *Lichtwand (Light Walls),* and is also frequently referred to by Pipilotti Rist in discussions of her works. See Chapter 2.

17 ter Meulen, B. C., D. Tavy and B. C. Jacobs. 2009. "From Stroboscope to Dream Machine: A History of Flicker-Induced Hallucinations." *European Neurology* 62 (5).

18 Sharits, P. 1969. "Notes on Films 1966-68." *Film Culture* 47 (Summer 1969):13-16. 14.

19 White, D. 2011. "Degree Zero: Narrative and the Contextual Imge." In *Expanded Cinema*, edited by A.L.Rees, D. White, S. Ball & D. Curtis, 110-124. London: Tate Publishing. 111.

20 See Paul Sharits' discussion of the rhythmic qualities of his Flicker Films in Sharits, P. 1978. "Hearing:Seeing." In *The Avant-Garde Film: A Reader of Theory and Criticism*, edited by P. A. Sitney, 255-260. New York: Anthology Film Archives. 256. For an analysis of frame progressions in the Flicker Films of Peter Kubelka, see Schneider, K. 2001. "Luminist Suprematism." In *Trans* (10/11). 57-60.

21 See Windhausen, F. 2008. "Paul Sharits and the Active Spectator." In *Art and the Moving Image: A Critical Reader*, edited by T. Leighton, 122-139. London: Tate Publishing.

22 These included Peter Kubelka *Arnulf Rainer* 1958/60, Tony Conrad *The Flicker* 1966, and Paul Sharits *Shutter Interface* 1975. Even when objective or representational imagery was included within the Flicker Films, it was often produced by means of the media-specific, self-reflexive gesture of re-photographing frames from other films. See for example Sharits' *Ray Gun Virus* 1966 and *Epileptic Seizure Comparison* 1976.

23 Krauss, op. cit. 24-5.

24 Ibid. 30.

25 Krauss, R. 2012. "Frame by Frame." *Artforum International* 51 (1):416-419. 416.

26 Krauss, R. 1986. "Video: The Aesthetics of Narcissism." In *Video Culture: A Critical Investigation*, edited by J. G. Hanhardt, 179-191. Layton: Peregrine Smith Books. 180. My emphasis.

27 Ibid. 184

28 It should be noted that this work also exists as a single-channel video projection.

29 Fried, M. 1998. *Art and Objecthood: essays and reviews*. Chicago: University of Chicago Press. 153.

30 Ibid. 154

31 Cavell, S. 1979. *The World Viewed: Expanded Edition.* Cambridge: Harvard University Press. 24. Much of Cavell's text deals with subjective reflections and remembrances of narrative film, and can therefore be thought of as analogous to Barthe's reflections on photography in *Camera Lucida*. In the endnotes to Art and Objecthood, Fried refers to his conversations with Cavell in the development of the text. The mutually influential relationship of their works is also surveyed in: Lee, P. M. 2004. *Chronophobia: On Time in the Art of the 1960's*. Cambridge: MIT Press.

32 Fried, op. cit. 171. For Fried, this quality is one of the things that makes cinema a refuge from theatre.

33 Ibid. 154.

34 Crary, J. 1990. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Cambridge: MIT Press. 129.

35 Ibid. 129.

36 Marien, M. W. 2002. *Photography: a Cultural History*. London: Laurence King. 82.

37 Quoted in Ibid. 83.

38 Literally, 'seeing at a distance.' See: Weber, S. 1998. *Mass Mediauras: Form, Technics, Media*. Sydney: Power Publications. 113.

39 Holmes, O. W. 1859. “The Stereoscope and the Stereograph.” *Atlantic Monthly* 3 (June 1859). http://www.theatlantic.com/magazine/archive/1859/06/the-stereoscope-and-the-stereograph/303361/ Accessed 29/4/2011.

40 Holmes, O. W. 1864. “Sun-painting and Sun-Sculpture.” In *Soundings from the Atlantic*, 166-227. Boston: Tickner and Fields. 171-2. Originally published in *The Atlantic Monthly* vol 8 (July 1861).

41 Ibid. 172.

42 Holmes. 1859. Unpaginated.

43 Barthes, R. 1981. *Camera Lucida: Reflections on Photography,* translated by R. Howard. New York: Hill and Wang. 14, 83.

44 Holmes’ references to the spectral can also be related to the popularity at the time of ‘spirit photography.’ Elsewhere, he delivered a ‘how-to’ guide to falsifying such photographs. See Holmes, O. W. 1864. “Doings of the Sunbeam.” In *Soundings from the Atlantic*, 228-281. Boston: Tickner and Fields.

45 These include big-budget Hollywood innovations such as the panoramic format ‘Cinerama’ and ‘Sensurround,’ developed for the 1974 film *Earthquake*. B-movie producer William Castle specialised in gimmicks such as: ‘Illusion-O,’ which used coloured 3D style glasses and ‘Emergo,’ which employed inflatable ‘ghosts.’ ‘Smell-O-Vision’ was one of several systems designed to synchronise the release of scents at specific points in a film.

46 Famously, a character in Jean-Luc Godard’s 1967 film *La Chinoise,* argues that, by claiming to present ‘reality’ the Lumieres were the first fiction-filmmakers. In contrast, he argues, in highlighting the constructed nature of his film-fantasies, Melies can be considered the first documentary filmmaker. This is a frequent reference point for Jacques Ranciere. See: Ranciere, J. 2007. *The Future of the Image*. New York: Verso.

47 For an account of the emergence of digital 3D cinema, see Elsaesser, T. 2013. ‘The ‘Return’ of 3-D: On Some of the Logics and Genealogies of the Image in the Twenty-First Century.” *Critical Inquiry* (39 (Winter 2013): 217-246.

48 Lippit, A. M. 1999. “Three Phantasies of Cinema: Reproduction, Mimesis, Annihilation.” *Paragraph* (22, Nov. 1999): 213-214. 213.

49 The distinctive red and cyan glasses of traditional 3D cinema were also developed by the Lumiere Brothers in 1902. They termed the innovation ‘Cinema in Relief.’

50 Flusser, op. cit. 84.

51 Herzog’s 2010 film *Cave of Forgotten Dreams* records the otherwise inaccessible experiences of the Chauvet-Pont-d’Arc Caves, and Wenders’ 2011 film *Pina* documents the final performances of the *Tanztheater Wuppertal* overseen by retiring choreographer Pina Bausch, who died during production.

52 The *Light Space Modulator* has always had a shifting identity, fulfilling functions that range from a projection device related to the ‘visual music’ of artists such as Thomas Wilfred and Oskar Fischinger, to a pedagogical tool for students’ observation of light and shadow. Several replicas have been developed since the 1970s, which have largely secured the identity of the work primarily as a kinetic sculpture. This ambiguity is reflected in its original description as a ‘Light Prop for an Electric Stage,’ which I discuss later in this chapter.

53 Moholy-Nagy, L. 1996. “Theater, Circus, Variety.” In *The Theater of the Bauhaus*, edited by W. Gropius, 16-26. Baltimore: Johns Hopkins University Press. 25.

54 Turrell, writing of his work with Irwin from 1967-1971 on the Art and Technology Program of the Los Angeles County Museum of Art, quoted in Weschler, L. and R. Irwin. 1982. *Seeing is forgetting the name of the thing one sees*. Berkeley: University of California Press. 131.

55 Ibid. 131.

56 See Adorno’s discussion of the Phantasmagoria in: Adorno, T. 2005. *In Search of Wagner*. London: Verso. 74-85.

57 Crary, J. 2004. “Robert Irwin and the Condition of Twilight.” In *Robert Lehman Lectures on Contemporary Art*, edited by L. Cooke, B. Funcke and K. J. Kelly, 65-86. New York: Dia Art Foundation. 80.

58 Flusser, op. cit. 71.

59 Don Ihde terms the role played by the camera obscura in Descartes’ thought an ‘epistemology engine’; see Ihde, D. 1992. “Image Technologies and Traditional Culture.” *Inquiry* 35 (3):377-388. For a survey of the camera obscura’s position in the work of the those metnioned, see Kofman, S. 1998. *Camera Obscura of Ideology,* translated by W. Straw. Ithaca: Cornell University Press. See also Crary, 1990. 25-66. For a more general history of the camera obscura see Lefevre, W. Ed. 2007. *Inside the Camera Obscura: Optics and Art under the Spell of the Projected Image*. Berlin: Max Planck Institute for the History of Science

60 Some members of the audience initially thought the image to be a video projection that did actually ‘fade up’ in response to their presence in the space. It was only when trying to figure out why the image was upside down that they realised the directness of the projection. In a related work, this aspect of the experience is highlighted through the introduction of a clockwork mechanism that interferes with the projection.

61 In “Art and Objecthood” Fried remarks that ‘the experience of coming upon literalist objects unexpectedly – for example, in somewhat darkened rooms—can be strongly, if momentarily, disquieting.’ Fried, 1998. 155.

62 This seems to be particularly true of the European slides, which are almost entirely situated in indoor complexes.

63 Marcel Duchamp applied this term to a series of works, including *Precision Optics* (1920), *Rotary Demisphere* (1925) *Anemic Cinema* (1926) and *Rotoreliefs* (1935).

64 Another version of the work exists which invites the viewer to hold their face close to a smaller screen with their eyes closed, thus bringing them face to face with the video subjects but also emphasising the screen as a surrogate for the Dreamachine.

65 Flusser, op. cit. 71.

Conclusion

This practice-led research emerged from my visual arts practice, which is focused on an engagement with apparatuses that mediate and transform experience. The research developed and articulated a model for the apparatus as a practice methodology to be applied within my own work, as well as applying this conception as an interpretive lens through which to consider the role of the apparatus in the work of other artists.

The apparatus is often overlooked in photographic discourse, in favour of an analysis of the images that it produces. It is my contention that this is a theoretical limitation that emphasises the photograph as an artefact, rather than considering the mediation of experience by the apparatus. This bias is acknowledged in one of photographic theory's primary texts, Roland Barthes' *Camera Lucida* (1981). A reading of Barthes' reflections on photography, against the grain of Maurice Merleau-Ponty's embodied perceptual phenomenology, was undertaken to highlight the status of the apparatus as a blind spot in photographic discourse.

Countering this oversight in relation to the apparatus, Vilém Flusser's expansive conception of 'the Universe of Technical Images' has provided a significant theoretical framework. Flusser's model of the apparatus as 'a device that simulates thought'[1] provided an important means of reconsidering the role of the apparatus in contemporary practice. His analysis of signification as a form of projection supports my own notion of photographic media as a means of mediating experience rather than communicating meaning. Flusser's focus on the apparatus as an object, a 'black box', that is connected to broader political and ideological apparatuses furnishes a significant critical context. This dimension of the apparatus is analogous to Michel Foucault's theoretical framework of the *dispositif,* providing another frame of reference for my consideration of the apparatus and its operations.

This theoretical model was developed to act as an interpretive lens to consider artists' uses of the apparatus as a means of gaining new insights into

their practices. The particular focus of this discussion was to locate instances in which artists make or modify apparatuses to mediate or generate specific experiences for their audiences. The artist-made apparatus presents a particular conception of the apparatus that is defined in terms of spectatorship.

Carsten Höller employs apparatuses that act directly on the perception of the viewer, and mobilises scientific principles in what he terms a ‘laboratory of doubt’. The experiences of the spectator are the materials with which he works, and through which he attempts to transform their perceptions of the world. He does this by treating the viewer and their perceptions like a readymade that can be transformed and adapted. His works therefore produce a form of hyper-spectatorship that transforms the viewing subject, destabilising perceptions to render them self-reflexive and open.

Pipilotti Rist creates bodily apparatuses and immersive video installations that envelop the viewer. She plays with technology as a familiar part of our everyday existence. Her works transform the alienating illusionism proposed by the cinematic dispositif into a full-body experience that plays with her viewers’ perceptions to suggest new experiences and ways of ‘being in the world’. While her use of video technology performs a mediating function, her interventions and expansions of the apparatus emphasise the concrete and embodied aspects of the spectator’s experience.

Olafur Eliasson creates apparatuses that generate images and experiences in the gallery space. These apparatuses form part of the spectator’s experience, and produce spectacular effects while simultaneously revealing the illusions that lie behind them. His apparatuses are inward-looking; they seek to transform the viewer by acting upon their perceptions. In this sense they evoke the historical disciplinary apparatus of the Panopticon, but Eliasson directs the institutional gaze of this apparatus towards the creation of convivial experiences for the viewing subject.

The practice-led methodology of this research developed five key strategies for engaging with the apparatus in my own work. These strategies ‘Play

Against the Apparatus' by creating unconventional apparatuses or modifying existing ones to subvert their functionality. Other works 'Replay the Apparatus' by revisiting and reinterpreting historical forms of the apparatus, using contemporary materials, a hand-made methodology and subjects drawn from the everyday spheres of nature and the domestic. I explored the relationship between 'Apparatus and Objecthood' to examine traditional art historical oppositions between the autonomous art object and art works that seek to engage the viewer. The spectator was brought 'Face to Face with the Apparatus' in a series of viewing devices and stereoscopic video viewers. The final strategy brought the spectator 'Inside the Apparatus', creating spatial and immersive experiences through which to experience its effects. As a result of these strategies, I have situated my own practice within the larger field of experientially focused contemporary art. I have developed a body of work that effectively engages with the apparatus by exploring its presence and materiality, and in turn investigates the relationships between the apparatus and its spectators.

The exhibition *Complex Experience* brought together these key strategies to explore various forms of engagement with the apparatus. Vilém Flusser's injunction to 'play against, not with' the apparatus resonates with my present and past processes, and it has emerged as the key strategy in my practice. This has been developed through my specific focus on the 'artist-made apparatus'. The process of making or physically modifying and adapting apparatuses in a do-it-yourself manner serves to reorient its operations and foreground its materiality.

Several works in the exhibition reduced the apparatus to its essential elements, by returning to the historical form of the camera obscura, or by focusing viewers' attention on the play of light produced by screens rather than the images that they presented. Other apparatuses created intimate and pseudo-immersive experiences that played with perceptions of realism and illusionism. A number of works engaged with the global complex of online image and video sharing networks, utilising the apparatus as a means of activating new experiences of these second-hand sources. Together, these

works displayed the inter-relation of my key practice strategies. They considered the complexity of the experiences produced and mediated by the apparatus. Taken as a whole, the exhibition played with the perceptions of its audience to investigate possible formations and alternative engagements with the apparatus-audience complex.

This practice-led research has developed at a time of increasing media saturation and the proliferation of what has been termed an 'Attention Economy,' in which the eye is 'dislodged from optics' to become a functionary of the apparatus.[2] As apparatuses, black boxes and screens become ever more integrated into the fabric of everyday life it becomes correspondingly important to interrogate them and to promote an awareness of their operations. In Flusser's thought this is a constant task, and 'the only form of revolution left open to us.'[3] This research has developed theoretical and practice-based strategies to undertake this task as part of the ongoing process of my practice.

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1 Flusser, V. 2001. *Towards a Philosophy of Photography*. London: Reaktion Books. 36.

2 This is a term propounded by Google CEO Dr Eric Schmidt. Quoted in: Crary, J. 2013. *24/7: Late Capitalism and the Ends of Sleep.* London: Verso. 75-6.

3 Flusser, op. cit. 82.

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